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Supreme Court of the United States

OCTOBER TERM, 1938.

THE MAYTAG COMPANY, *Petitioner*, vs. HURLEY MACHINE COMPANY, et al., *Respondents.*	No. 76
THE MAYTAG COMPANY, *Petitioner*, vs. EASY WASHING MACHINE CORPORATION, *Respondent.*	No. 77
GENERAL ELECTRIC SUPPLY CORPORATION, *Petitioner*, vs. THE MAYTAG COMPANY, *Respondent.*	No. 661

BRIEF FOR RESPONDENTS (IN CASES NOS. 76 and 77) AND PETITIONER (IN CASE NO. 661)

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BRIEF FOR RESPONDENTS (IN CASES NOS. 76 and 77) AND PETITIONER (IN CASE NO. 661)

Cases Nos. 76 and 77 come to this Court on writs of certiorari issued to the Circuit Court of Appeals for the Second Circuit, and case No. 661 on a writ of certiorari issued to the Circuit Court of Appeals for the Eighth Circuit. The writs were issued to review a conflict of decision between the Second Circuit Court of Appeals (cases Nos. 76 and 77, 96 F. (2d) 87; Nos. 76-7, III, 1458),* and

*The records in the cases will be identified by the case number followed by the volume number in Roman numerals and the page number in Arabic numerals.

the Eighth Circuit Court of Appeals (case No. 661, 100 F. (2d) 218; No. 661, IV, 1886) with respect to the validity of apparatus claims 23, 26 and 29 of the Snyder patent 1,866,779 owned by The Maytag Company, issued on July 12, 1932 on an application filed on June 14, 1922.

Jurisdiction is based upon the patent laws of the United States (28 U. S. Code 41).

STATEMENT OF THE CASE

In cases Nos. 76 and 77, the writs issued on petition of plaintiff, The Maytag Company. The question presented by plaintiff's petition is:

> "Whether the Circuit Court of Appeals for the Second Circuit erred in decreeing claims 23, 26 and 29 of the Snyder patent in suit invalid and in not holding each of them valid and infringed?"

In Case No. 661, the writ issued on petition of defendant, General Electric Supply Corporation, to review the Eighth Circuit Court of Appeals decision holding the same claims valid and infringed. The questions presented by the petition are:

> "1. Whether claims 23, 26 and 29 of the patent in suit are valid or invalid.
>
> 2. Whether claim 23, if valid, is infringed by the washing machines made and sold by petitioner.*
>
> 3. Whether the patent is wholly invalid and unenforceable by reason of respondent's [The Maytag Company's] neglect to either disclaim [the method] claim 39 or make an effort to sustain it as valid in this suit."

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*It is not true that, as plaintiff says (Pltf. brief, p. 3), infringement of claim 23 is "undisputed" or that it was "conceded in the Court of Appeals" (see Petition for Rehearing; No. 661, IV, 1899-1901).

The Antecedent Decision in the Brooklyn Edison Case

Before any of the three cases now in this Court were brought to trial, plaintiff's Snyder patent had been litigated in a suit brought by plaintiff against the Brooklyn Edison Company for infringement by reason of the *sale* by that company of washing machines *manufactured* by the defendants in the instant cases Nos. 76 and 77. The accused machines in the *Brooklyn Edison* case and in cases Nos. 76 and 77 are substantially the same. In the *Brooklyn Edison* case, tried in the Eastern District of New York, the sale and use of these machines was charged to infringe method claim 38 of the Snyder patent and also the apparatus claims 23 and 26 here involved. The trial judge (Judge Byers) held these claims valid and infringed (11 F. Supp. 743). The Second Circuit Court of Appeals on November 30, 1936 (Judges Manton, A. N. Hand and Chase sitting) unanimously reversed the decree of the trial court and ordered the entry of a decree dismissing the bill. The Court of Appeals found that the method of washing described in the patent was already known and that the machine defined in claims 23 and 26 was likewise anticipated, and held the method claim 38 and the apparatus claims 23 and 26 invalid (86 F. (2d) 625). Plaintiff filed in this Court a petition for writ of certiorari which was denied on February 15, 1937 (300 U. S. 662).

The Disclaimer

Thereupon, on February 23, 1937 (Nos. 76-7, II, 670) plaintiff disclaimed the method claim 38 and also method claim 1 of the patent, but did not disclaim claim 39, the remaining method claim of the Snyder patent. Claim 39 remains in the patent as the sole method claim therein, but plaintiff has not asserted it against any of the defendants now before this Court.

It is upon plaintiff's conduct in this regard, and upon the fact that claim 39 defines the same method defined by claim 38 and held invalid in the *Brooklyn Edison* case, that defendants assert that the patent is wholly invalid and unenforceable by reason of plaintiff's neglect either to disclaim the method as defined in claim 39 or to make an effort to vindicate that claim in these suits. *Ensten* v. *Simon, Ascher & Co.*, 282 U. S. 445; *Triplett* v. *Lowell*, 297 U. S. 638 (see *post*, pp. 27-35).

The Decisions in the Instant Cases

In each of the three cases now before this Court the claims relied upon are the apparatus claims 23 and 26 held invalid in the *Brooklyn Edison* case and apparatus claim 29, which is not significantly different from claim 26 (compare plaintiff's brief pp. 62 and 64-5).

Cases Nos. 76 and 77 were consolidated and tried together in May 1937 on one record in the Second Circuit. The trial judge (Judge Coxe), following the decision in the *Brooklyn Edison* case, held all three claims invalid (Nos. 76-7, III, 1433 and 1437). In case No. 661, in the Eighth Circuit, the trial judge (Judge Otis) in January 1938 held the same three apparatus claims valid and infringed by the washing machines sold by General Electric Supply Corporation which, for the purposes of this litigation, may be thought of as the same as the accused washing machines in the *Brooklyn Edison* case and in cases Nos. 76 and 77. In his memorandum opinion (No. 661, II, 553-9), Judge Otis approved and adopted the opinion of Judge Byers in the *Brooklyn Edison* case and expressed his disagreement with the decision of the Second Circuit Court of Appeals reversing Judge Byers' decision.

In cases Nos. 76 and 77, on April 4, 1938, the Second Circuit Court of Appeals (Judges Manton, A. N. Hand and L. Hand sitting), affirmed the decision of the trial court (96 F. (2d) 87; Nos. 76-7, III, 1458), on the authority of the previous

decision in the *Brooklyn Edison* case (86 F. (2d) 625). The court noted Judge Otis's contrary decision saying:

> "upon examination of what he wrote, we discover no contribution to cause us to change the views expressed in the previous litigation in this circuit as to the invalidity of this patent." (Nos. 76-7, III, 1461).

In case No. 661, the Eighth Circuit Court of Appeals on December 15, 1938, affirmed the decision of Judge Otis, holding the three apparatus claims valid and infringed. The court referred to the previous decisions of the Second Circuit Court of Appeals but found itself unable to follow them (100 F. (2d) 218, 225; No. 661, IV, 1886, 1898).

Both Circuit Courts of Appeals filed opinions in which the grounds of their conclusions are fully stated.*

The Snyder Patent in Suit

The Snyder patent (Nos. 76-7, II, 660, Off. I, 148) is entitled "Washing Machine"; it purports to describe an "improved method of and apparatus for cleansing fabrics" (1/69-70).**

The washing of fabrics requires that the deposit of foreign substances which find lodgement in the meshes and in the interstices of the threads be removed. The use of hot soapy water aids greatly in the removal of dirt parti-

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*The opinion of the Second Circuit Court of Appeals in the Brooklyn Edison case is printed as an appendix to this brief, with the Federal Reporter paging, for convenient reference. The opinion of the Eighth Circuit Court of Appeals is conveniently printed at pages 1886 and following of Volume IV of the record in case No. 661.

**In referring to the patent we shall adopt the shorthand method of indicating the page and line as in the text, (1/69-70) meaning page 1, lines 69 to 70.

cles from the thread fibers, but the particles loosened by the soap and water require deforming of the threads for their expulsion. This deformation requires such application of force to the threads as will produce alternate compression and release thereof, and this process, repeated a number of times, comprises washing and will result in cleansing (No. 661, I, 177).

This thread deformation by alternate compression and release, requisite in all clothes-washing operations, is well effected manually with the familiar tub and washboard; but many washing machines of various types have been devised to supplement or replace these simple household appliances. There has been extended manufacture and sale of several different types of washing machines in which mechanical parts are so disposed in a container or tub that the necessary deformation is effected by rubbing the fabrics against ribs or corrugations in the tub itself. Plaintiff's brief (pp. 20-31) illustrates and describes a number of such washing machines, including (1) the rubboard type in which "the rubboard slid down, engaging and compressing the clothes into a mass, and dragging, squeezing and rubbing them between the under surface of the rubboard and the ribbed bottom of the tub" (brief p. 23)*; (2) the peg dolly type in which a "dolly" or wooden disc

*On this page of their "Statement of the Case" plaintiff's counsel include the machine of the Davis patent 1,240,826 of 1917 and of the 1900 Company's Form 1 washer made under that patent in this class of rubboard machines, with the assertion that this classification is established by "undisputed testimony". The fact is that the inclusion of those earlier machines in the rubboard class is the principal point of plaintiff's *argument*, very definitely disputed by defendants by evidence which is, in our submission, of overwhelming weight. The point in question is, in fact the basic ground of factual disagreement between the decision of the Second Circuit Court of Appeals against the patent and the decision of the Eighth Circuit Court of Appeals in favor of the patent (see post pp. 72-74).

having depending pegs or legs is oscillated within a corrugated tub to wash the clothes by "grabbing the mass of clothes and dragging them back and forth through the water against scrubbing or rubbing corrugations formed on the interior or side walls and across the bottom of the tub" (brief p. 26); (3) the oscillator type in which "the clothes were washed by being scrubbed on high spaced ribs or cleats in the bottom and ends of the tub as the tub itself was rocked (oscillated) back and forth". (brief p. 28); (4) the cylinder type in which "the clothes were lifted and tumbled about as a mass so that the outside of the ball or wad of clothes was rubbed and scrubbed by the ribs or cleats as the cylinder was rotating" (brief p. 30); and (5) the vacuum type in which "cup-shaped plungers called 'vacuum-cups' were used for pressing and squeezing the clothes between the plungers or cups and the bottom of the tub in washing them" (brief p. 30). But the Snyder patent distinguishes the operation of the patented machine from the operation of the several types of various washing machines thus enumerated in plaintiff's brief, when it refers to the way Snyder's machine washes clothes as "distinguished from their being rubbed or drawn through the water by a dolly or other mechanism, or tumbled against the sides of the tub or rubbed against projections on the interior of the tub" (2/25-9).

It is not, therefore, with machines of this rubbing or scrubbing type that we are here concerned. The type of washing machine with which we are concerned in the present litigation is one in which by the rotary oscillation of a bladed impeller or "agitator" there is imparted to the water and the clothes within the tub a definite washing and cleansing movement, in which movement the fabrics are distorted and manipulated by the water action and contacts between the clothes and the impeller also occur, whereby the clothes are washed partly by water action and partly by rubbing. Plaintiff prefers to name these machines the "gyrator type", because in the patent the "definite washing and

cleansing movement'' resulting from the rotary oscillation of the impeller is called a ''gyratory action or movement'' (1/89-90) and the impeller is called a ''gyrator''. Elsewhere in the record machines of this type are referred to as of the ''agitator type''.

A precise understanding of washing machines of this agitator or ''gyrator'' type, including the patented machine and the machines brought forward by defendant as anticipatory of it, is important to the correct determination of this controversy.

We proceed first to describe, by reference to the patent, the method of washing clothes which Snyder desired to perform and the machine which he describes for that purpose. We shall refer to the agitator or ''gyrator'' type machines of the prior art in our ''Argument'' (*post* pp. 36-59).

The Method Disclosed in the Snyder Patent.

The patent calls attention to the wear and tear incident to washing clothes, particularly delicate materials, in washing machines such as the rubboard and peg dolly types in which the materials to be washed are ''rubbed or drawn through the water by a dolly or other mechanism, or tumbled against the sides of the tub or rubbed against projections on the interior of the tub'' (2/26-9) and to the desirability of a washing operation in which the friction on the articles to be washed is reduced, thus preserving their life (1/25-33).

It asserts that this desirable result may be obtained in a washing machine having a tub and a ''gyrator''* ''by so constructing and associating the tub and the gyrator of the washing machine, and so operating the gyrator'' that

*The ''gyrator'' is a bladed impeller or agitator mounted in the tub for rotary oscillation on a vertical axis for the purpose of imparting the required movement to the water (2/45-9).

the gyrator and tub "coact" to give to the goods to be cleansed while "in a suspended condition" in the washing liquid, "a definite washing and cleansing movement" within the tub (1/34-61).

The course of this "definite washing and cleansing movement" of "the contents of the tub" is shown in dotted lines in Fig. 1 of the patent drawings (see 3/108-10) and it is described (with reference to the illustrated arrangement in which the gyrator is mounted at the bottom of the tub) as "normally radially outward from the central portion of the tub, then upwardly, then inwardly and then downwardly toward the center of the gyrator, and yet at the same time there is a generally rotary progression or movement about the inside of the tub, first in one direction and then in an opposite direction . . ." (1/80-90). Later in the specification this description of the movement of the cleansing fluid in the tub when the impeller is oscillated, is repeated (5/4-10) and it is said that "the resultant motions are substantially gyratory ones, as helical movements about a ring having a circular cross-section" (5/11-13 and also 1/87-9); that "As a result of this action imparted to the cleansing liquid by the gyrator, the water in turn imparts a similar action to the fabrics" (5/15-18); and that

> "Goods are thus whipped, whirled and dashed around in the sieving, whirling, turbulent action set up by the gyrator. Thus the fabrics are given a quick, snappy, sieving, whirling, reversing double action, produced by the gyrator, doubling the clothes first one way and then the other until every thread in the fabric is acted upon an untold number of times, somewhat like the cracking of a whip-lash in all directions." (5/18-28),

all in a manner which is said to be "very difficult to describe" (5/28-9; 2/42-43).

The specification repeatedly points out that this definite washing and cleansing movement will be produced "irrespective of the upper or lower end position of the gyrator" in the tub (1/40-2 and 54-61); that an inverted gyrator depending from the top of the tub may "within the contemplation of this invention" be substituted for the bottom-positioned gyrator shown in the drawings with the "consequent reversal in the flow of the fluid through the tub" (3/29-44 and 4/8-12).

There is nothing mysterious about the course of movement thus described. The suggested difficulty of verbal description cannot be used to give any advantage or disadvantage to plaintiff or to defendants. The movements sought to be described are merely the physical reaction of the fluid contents of the tub to the action of the bladed impeller (gyrator) when it is rapidly rotated first in one direction and then in the reverse direction (2/32-41 and 5/1-13).* If the impeller is mounted at the bottom of the tub, the water moves outwardly at the *bottom* of the tub, then upwardly, then inwardly, and then downwardly toward the center of the impeller (1/81-4). If the impeller

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*In Marchand v. Emken, 132 U. S. 195, this Court recognized as the "well understood operations of centrifugal force" the movement in a cylindrical vessel of liquid agitated by a revolving impeller in paths described as follows:

> "the liquid is thrown out towards the circumference of the vessel at the bottom, rises at the sides, returns to the centre, and then descends, to be again thrown out at the bottom, while at the same time it is carried round and round" (pp. 199-200).

In the agitator or "gyrator" type washing machines here under consideration, because of the oscillation of the impeller (as distinguished from continuous rotation in one direction) the water instead of being "carried round and round" is moved circumferentially first in one and then in the reverse direction.

is inverted and mounted in the top of the tub, the same course of movement is produced but now the water moves outwardly at the *top* of the tub, then downwardly, and then inwardly and upwardly toward the center of the impeller (3/41-4). In either case the oscillation of the impeller creates the general "rotary progression or movement about the inside of the tub, first in one direction and then in an opposite direction" (1/85-8).

It is said in the patent that the rotary oscillation of the gyrator is "rapid and energetic" (1/47) and that the wash water is "vigorously agitated and rigorously moved about the tub in devious paths to sustain the washable materials, whereby they will not be injuriously affected by the gyrator operating or actuating mechanism" (1/95-100). In claim 26, here charged to be infringed, the machine is defined as one "for cleansing fabrics by forcing cleansing fluid through them while substantially suspended by the action of the fluid" (8/94-7). In claims 26 and 29 the cooperation of the tub and the impeller is said to be for whipping the fluid and violently forcing it in the described paths "through and around the materials while substantially suspended therein by the action of the fluid" (8/113-4 and 9/60), and in claim 23 it is said that the water moves in the defined paths "toward and around the clothes" (8/21-2).

It is clear from this disclosure that the coaction of the oscillating gyrator and the tub constantly and vigorously maintains the described circulatory movement of the water and of the clothes suspended therein. But whether the clothes do or do not make rubbing contact with the impeller blades is left in considerable obscurity by the patent specification. The statements of the specification in that regard are ambiguous. The specification says that the movements of the gyrator "do not interfere with the goods or cause them any injury or damage" (1/48-50); that the effect of the movement of the water is "to con-

stantly press the clothes upwardly" so that they are maintained "in the liquid above the blades" (1/54-61); and that the clothes are washed "by the action of the water itself on the materials" as distinguished from their being "rubbed or drawn through the water by a dolly or other mechanism, or tumbled against the sides of the tub or rubbed against projections on the interior of the tub" (2/24-9).

These expressions, without more, might reasonably be taken to mean that the clothes are completely suspended in the water and are carried around above the zone of movement of the impeller blades and do not make contact therewith, the clothes being washed by water action alone without rubbing of the clothes against the impeller blades. But elsewhere in the patent (and in each of the claims 23, 26 and 29—see 8/27, 114 and 9/61) the suspension is spoken of as "*substantial* suspension" in the soapy water or other cleansing liquid used (1/60) and it is said that the clothes are kept out of "*substantial* rubbing contact" with the walls of the tub or with the "gyrator" (1/71-3 and 2/32-3), and that the operation is one which "*largely* prevents rubbing the clothes against the container or gyrator" (2/36-41).*

This ambiguity of expression led to controversy in the *Brooklyn Edison* case as to whether or not the Snyder patent describes a washing operation in which there is no rubbing of the clothes against the tub or the impeller blades. In that case, plaintiff (The Maytag Company) at first took the position, as it had done in the patent office,** that the patent describes a method of washing clothes in which the fabrics are so far sustained by the water out of rubbing contact with the impeller blades that

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*Emphasis in this brief is supplied by us unless otherwise noted.

**See file wrapper (Nos. 76-7, III, 1265-6, Off. I, 347) for example.

the clothes are washed by water action alone. Defendant in that case thereupon offered evidence to show that in the machines sold by it (and, indeed, in any such machine if it is to clean the clothes at all) there is and has to be effective rubbing, scrubbing and flexing of the clothes by the impeller blades. The Maytag Company then, in its rebuttal proofs in the *Brooklyn Edison* case, took the position that in the operation of the machine of the Snyder patent the fabrics are *not* suspended by the washing fluid out of contact with the impeller blades, but do go down between the blades and into contact with them so that the clothes are washed partly by water action and partly by rubbing the clothes against the moving impeller blades; and that throughout the specifications and claims of the Snyder patent it is taught that the clothes are washed primarily, but not entirely, by water action. On this presentation Judge Byers found that (No. 661, II, 829):

> "To say that the clothes were suspended, that is, maintained horizontally or otherwise out of any contact with the impeller, would be untrue."

and (No. 661, II, 853, Finding of Fact No. 20):

> "20. As the result of observations of numerous demonstrations in the court room with washing machines of the Maytag type, embodying the Snyder invention, including those of plaintiff's manufacture and the Easy machine here charged to infringe, this Court finds that the major factor in cleansing the fabrics is the water action which so functions as to distort and manipulate the fabrics and thereby to cause thread deformation; such contact between the fabrics and the impeller as does take place, is the subordinate and not the dominant phase of the accomplishment."

This resolution of the ambiguity in the patent specification was adopted by plaintiff in its presentation to the Circuit Court of Appeals in the *Brooklyn Edison* case, and

was accepted by the defendant as a satisfactory definition of the true mode of operation of the Snyder machine, notwithstanding the fact that the comparative adjectives "subordinate" and "dominant" might be hard to justify.*

The Second Circuit Court of Appeals in its opinion said (86 F. (2d) 625, 627):

> "The evidence shows that the machine made under the patent and the machines of the appellant, as well, cannot wash by water action alone. Some scrubbing, pounding, or flexing to deform the threads of the fabric is indispensable to the clothes washing operation. In the machine made under the patent, the circular movement of the water and the clothes does in fact bring the clothes and different portions of them rapidly in contact with the impeller blade which scrub, beat, and flex the clothes to conform the threads and loosen the dirt from the interstices of the fabrics. Indeed, the appellee does not claim that there is no rubbing of the clothes against the container or the gyrator but that this is largely prevented in its machine. It says claim 38 calls for substantially suspending the materials while they are being washed. Throughout the specifications and claims it is taught that the machine operates primarily by water action. Thus the method claim as well as the apparatus claims call for washing

*The proportionate contribution to the cleansing process of the water action and the rubbing is not established by the evidence. There is not to be found in the patent or in the evidence any quantitative statement as to how much soil is removed by water action and how much is removed by the contact which occurs between the fabrics and the moving agitator blades. No attempt has been made by plaintiff to establish the proportionate amount of soil removal accomplished by these two factors. All that can be determined by actual observation is that the clothes are in fact repeatedly moved through the described course; that in such movement they do in fact make repeated contact with the agitator and that they are thereby cleansed.

clothes partly by water action and partly by rubbing the clothes against the moving agitator blades, with the rubbing the subordinate instead of the dominant factor in the cleansing.'"*

Evidence to this same effect, as to the deformation of the threads indispensable to the clothes-washing operation and the rubbing of the clothes by the agitator blades, was given in case No. 661 with respect to the patented machine (No. 661, Bones, I, 114; Taggart, I, 181, f. 329; 184-5, ff. 337-8; 192, f. 352; 193, f. 354; 253, f. 465) and

*Plaintiff makes astounding and to us incomprehensible statements about the course of this controversy in the Brooklyn Edison case, and the relation of the Circuit Court of Appeals decision in that case to the findings of the trial judge. At pages 13 and 14 of its brief counsel comment upon the expert testimony in the Brooklyn Edison case and say that "This testimony was abandoned by defendants in the Easy Hurley cases" (p. 14). The fact is that the expert testimony was unnecessary to the defense in the Easy Hurley cases since the ambiguity had been resolved by the decision of the Second Circuit Court of Appeals which was binding upon the trial court in the Easy Hurley cases (Nos. 76-7), at least until overcome by new evidence, and plaintiff presented no such evidence. At page 15 of its brief plaintiff says that the Second Circuit Court of Appeals "completely disregarded" the trial court's findings "As to the * * * operation of the Snyder invention" and the same remark is repeated at page 19. But the above quotations from the record demonstrate the contrary. At page 102 of their brief counsel refer to the volume of the record before Judge Byers and say "This was largely due to the defendant's tactics and extended attempts to show that clothes could not possibly be washed by water action. This was so completely refuted and disposed of at that time that it was not even argued in the Court of Appeals." We leave it to plaintiff's counsel to reconcile these assertions with the course of events as disclosed by the above review of the record, and particularly with the foregoing quotation from the opinion of the Second Circuit Court of Appeals.

with respect to defendants' machines (Taggart No. 661, I, 183, f. 334; 193; 194), and the interpretation of the patent, that it taught washing largely by water action rather than by water action alone, was again suggested to the trial court by plaintiff in its "Suggestions as to Findings of Fact" which were adopted by Judge Otis without change (see No. 661, I, 23-5 and Opinion II, 557-9).* That interpretation was necessary if the charge of infringement was to be sustained, since, as we have just pointed out, the evidence in the *Brooklyn Edison* case and in case No. 661 was that in defendants' machines the clothes do in fact make repeated contacts with the impeller blades.

Thus giving to the patent the most liberal interpretation and resolving the ambiguity in favor of plaintiff's contention, Snyder's supposed contribution to the art of washing clothes, as set forth in the patent, was described by the Court of Appeals in the *Brooklyn Edison* case as,

> "immersing the fabrics in soapy or other cleansing fluid in a tub and then impelling the washing fluid about the tub in a predetermined course specified**, so 'vigorously and rapidly' that the movement imparted to the wash water in turn imparts a similar movement to the fabrics, in which movement the fabrics are distorted and manipulated by the water action and contacts between the clothes and the impeller also occur, whereby the clothes are washed partly by water action and partly by rubbing." (86 F. (2d) 625, 627).

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*The Finding No. 3, sub-paragraph (i) (No. 661, I, 23) was that the currents of liquid *"substantially* suspend" the clothes being washed and that (p. 24) "the washing was done *largely* by the violent water action". The Finding No. 5 was that the Snyder machine washed *"largely* by water action" as distinguished from rubbing, [illegible]rubbing, etc., "as they were rubbed on the old-fashioned washboard" (p. 25).

**See the specification of this predetermined course adopted by the court, from page 1 of the patent, lines 80-6, quoted at 86 F. (2d) 627, top of first column.

The Type of Washing Machine Disclosed in the Patent

The washing machine disclosed in the patent comprises three mechanical elements combined and arranged to produce the above described movements. These three mechanical elements are (1) a tub, (2) an impeller or agitator mounted centrally on a vertical axis in the tub, and (3) power means by which the impeller or agitator may be oscillated.

The specific description of the three elements of the apparatus in the patent is as follows:

As to the *tub;* the patent states that it "preferably has a smooth interior" (1/61-2) and is "preferably substantially square in horizontal cross-section" and "shallow with respect to its horizontal dimensions" (3/22-3). The tub as shown in the patent drawings has "a central bottom portion 46, an inclined portion 48 and vertical side walls 49" (3/25-6). The patent points out, however, that the tub may be "of other form than square" and that "the inclined portion 48 may be omitted" (3/27-8).

As to the *impeller or agitator;* it is described and illustrated in Figure 4 of the patent as a dish-shaped disc or plate 54 "the central or inner portion of which merges in a continuous concave curve into a central upstanding stem portion 53 which tapers upwardly and terminates in an upper rounded end" (3/58-63) which is "free of blades and forms a smooth, continuously flowing curve at the apex 57" (3/85-7). The outer peripheral edge of the dish-shaped disc "extends outwardly and upwardly in a concave curve 55 which is continuous with the dished curve of the portion 54" (3/64-7). Extending across the disc or plate from the central stem 53 are four blades, wings or flanges 56. These blades are said to be "of substantial height at their outer portions" (3/88-9) and to extend "considerably above the dish-shaped member to provide sufficient blade surface to im-

part a considerable force or throw to the water in the direction outwardly and somewhat parallel to the axis of rotation of the gyrator" (3/98-102). The patent states (3/113-16) that while the impeller is illustrated as having four blades, "any other number" may be used as desired.

The impeller illustrated in the patent is mounted at the bottom of the tub with the blades extending upwardly, but the patent points out (3/29-44) that it may be mounted in inverted position so as to depend into the water from the top of the tub, without changing the identity of the washing machine; since "it must be evident" that the overhead positioning of the impeller would merely bring about a "consequent reversal in the flow of the fluid through the tub" when the machine is operated.

As to the *power means;* there is a shaft 52 on which the impeller is mounted. This shaft extends upwardly through the central portion of the bottom of the tub, and is connected with "a motor 5" (2/76) for imparting rotary oscillation to the shaft and to the impeller mounted on it. The nature of the gearing, coupling, and other details of the driving mechanism etc. are set forth in the patent (2/73 to 3/21 and 3/116 through 4/130), but those details are not incorporated in any of the claims in issue and are, therefore, unimportant here.

The specification does not include any quantitative statement of dimensions of the tub, the impeller or the impeller blades, nor is anything said about the power or speed of the motor drive or the number of oscillations per minute of the impeller or the amplitude of oscillation.

The Claims in Suit

The charge of infringement in all three of the cases before this Court is restricted to apparatus claims 23, 26 and 29. The only method claim remaining in the patent, claim 39, is not relied upon. Claims 26 and 29 are expressed in broader terms than claim 23 and, therefore, will be discussed first.

Claim 26.* This claim purports to cover "In a washing machine for cleansing fabrics by forcing cleansing fluid through them while substantially suspended by the action of the fluid", the combination of three mechanical elements: (1) "a tub"; (2) "a substantially imperforate rotary reciprocatory impeller mounted to operate in a fixed plane having blades of substantial height and area projecting therefrom in a direction towards the fabrics", and (3) "power means for rapidly reciprocating the impeller".

The three elements (tub, impeller and power means) are claimed in combination without regard to distinctive features of the individual elements illustrated and described in the patent, further than that the impeller shall be mounted to operate in a fixed plane and the blades shall be of substantial height and area.

The tub may be square, as shown in the patent, or it may be any other shape (3/27-8). It may or may not have the inclined bottom portion 48 shown in the drawings and described at page 3, lines 26, 47-51 and 106-8 of the patent, a

*"26. In a washing machine for cleansing fabrics by forcing cleansing fluid through them while substantially suspended by the action of the fluid, as distinguished from pulling or pushing the fabrics through the fluid or against scrubbing surfaces, or otherwise scrubbing them by mechanical means, a tub, a substantially imperforate rotary reciprocatory impeller mounted to operate in a fixed plane having blades of substantial height and area projecting therefrom in a direction toward the fabrics while they are being cleansed, said tub and impeller being so constructed and arranged as to cooperate while the impeller is in operation for whipping the fluid and violently forcing it outwardly, upwardly and in a general vertical and circulatory movement and circumferentially of the tub first in one and then in an opposite direction and through and around the materials, and substantially suspending the materials in the fluid while being washed, and power means for rapidly reciprocating the impeller."

feature which is incorporated in other claims not relied upon in this suit, for example, claims 4, 5, 12, 21, 22, 27, 28 and 30. The interior surface may be corrugated or smooth; the claim makes no requirement in that regard, in contradistinction to other claims which state specifically that the tub interior is smooth, such as claims 2, 3, 21, 22, 23, 25, 27, 28, 30, 31, 33, 34, 35 and 36.

The impeller may be of any shape; it may or may not have the central tapered dome 53, and the blades may be of any shape and need not be uniform or equally spaced. These features are incorporated in other claims; for instance, claims 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16 and 23 call for a dish-shaped base; claims 11, 13, 14, 15, 16, 18, 19, 23, 24 and 28 call for a central tapered dome; claims 14 to 20, 24 and 28 call for tapering lobe-shaped blades, and claims 24, 27 and 28 call for uniform and equally spaced blades.

Thus, by striking and obviously intended contrast with other claims, claim 26 covers broadly a washing machine having the three mechanical elements called for by the claim, without regard to the particular form of those elements specifically described and illustrated.

It would appear from plaintiff's brief that it is not content with claim 26 as it stands, but seeks to read into it the limitation that the interior of the tub shall be smooth, as well as a particular spacing of the edge of the impeller with relation to the wall of the tub (pp. 61-2). In its discussion of claim 26 the brief says that "this spacing is very important, etc." But there is no mention in claim 26 of either of these things. To read such language into claim 26, where it does not appear, would be contrary to controlling precedent. *Altoona etc. Co.* v. *American etc. Corp.*, 294 U. S. 477, 487 and see *post* pp. 61-2

In addition to the recital of the three elements of the combination in claim 26, the tub and impeller are said to be "so constructed and arranged as to cooperate while the impeller is in operation for whipping the fluid and violently

forcing it'' in the course of circulatory movement described in the patent ''through and around the materials and substantially suspending the materials in the fluid while being washed''.

Claim 29.* This claim defines the washing machine of the patent in substantially the same language as claim 26. We understand that plaintiff does not disagree with us on this (see Pltf. brief pp. 64-5). The bottom mounting of the impeller emphasized at page 64 of plaintiff's brief is not put forward by it as a difference, since its position is that claim 26 also defines a bottom-mounted impeller (p. 62). The quotation from claim 29 emphasized in plaintiff's brief at pages 64-5 is not significantly different from the comparable language in claim 26. There is no difference between the ''violently forcing'' of claim 26 and the ''suddenly and forcibly . . . and vigorously'' forcing of claim 29.

It is defendants' position that these claims 26 and 29 (and also claim 23 unless that claim is restricted to the dish-shaped disc impeller, which defendants do not use) are

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*"29. In a washing machine, a tub adapted to contain cleansing liquid and materials to be cleansed, a rotary reciprocatory impeller mounted adjacent the bottom of the tub, comprising a substantially imperforate base of substantial area and blades of substantial height and lateral area projecting from the body of the impeller toward the materials while being washed, said impeller and tub being so constructed and arranged that they will cooperate, when the impeller is rapidly reciprocated, to cause the liquid to be positively forced outwardly, upwardly and circumferentially along the interior of the tub in one general direction, and then outwardly, upwardly and circumferentially along the tub in the opposite general direction, whereby the materials being washed will be cleansed, the change in direction of movement of the impeller being accomplished suddenly and forcibly to whip the liquid and vigorously force it first in one direction and then in the opposite direction through and around the materials while substantially suspended therein by the action of the liquid, and power means for rapidly reciprocating the impeller."

invalid because they were anticipated by prior patented machines and by prior manufacture, use and sale in the United States (see *post* pp. 36-69).

The Second Circuit Court of Appeals in the *Brooklyn Edison* case sustained this position. It found anticipation of claim 26 and claim 23 (giving it the broad interpretation urged by plaintiff to embrace defendants' machine in that case), in the patent to Davis, the patent to Doughty & Davis, the 1900 Company machines and the Jardine British patent of 1891.

Claim 23.* This claim, like claims 26 and 29, specifies the three essential elements, that is, the tub, the impeller and the power means. It specifies, as does claim 29, that the impeller is "mounted in the tub adjacent its bottom". Claim 23, however, differs from claims 26 and 29 in that it contains specific limitations with respect to the form of the tub and the impeller and their arrangement one with respect to the other. The claim requires the interior surface of the tub to be "free from rubbing projections" and the form of the impeller is specifically described as one which has "a central portion projecting upwardly from

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*"23. A washing machine comprising in combination, a tub for containing cleansing liquid and materials to be cleansed, said tub having a bottom portion and an upwardly extending wall portion, the interior surface of which is free from rubbing projections, a rotary reciprocatory impeller mounted in the tub adjacent its bottom, having a base and a plurality of blades, each of which is of substantial height and lateral area, and a central portion projecting upwardly from the base, the upper surface area of the base being considerably less than the horizontal cross-sectional area of the tub through its upwardly extending portion, the margin of said base being spaced a substantial distance away from the upwardly extending portion of the tub, said tub and impeller being so constructed and positioned relative to each other that when the impeller is rapidly reciprocated each blade and its adjacent portion of the impeller base will simultaneously

(*Footnote continued on next page.*)

the base'' and ''so constructed'' that ''each blade and its adjacent portion of the impeller base'' will simultaneously impart an ''upward'' circulatory motion to the contents of the tub.

The language thus used with respect to the impeller in this claim 23 is apt language to describe the form, and the nature of the impelling action, of the dish-shaped disc impeller illustrated in Figs. 1 and 4 of the drawings and specifically described in the specification. The ''central portion projecting upwardly from the base'', specified in the claim, is described in the specification as ''a central upstanding stem portion 53 [see Fig. 4] which tapers upwardly and terminates in an upper rounded end'' (3/60-3). In the claim it is said that the tub and impeller are ''so constructed and positioned relative to each other that when the impeller is rapidly reciprocated each blade *and its adjacent portion of the impeller base* will * * * drive the cleansing fluid in * * * an * * * outward *upward* circulatory direction'', etc. The co-action of the blades and the ''adjacent portion of the impeller base'' thus emphasized in claim 23 is described in the specification as follows (3/63-7): ''The outer peripheral edge of the trough-like portion 54 extends outwardly and upwardly in a concave curve 55 which is continuous with the dished curve of the portion 54'' (see Fig. 4); and (3/103-8) ''It is to be noted that the outer

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(Footnote continued from previous page.)

drive the cleansing fluid in one and then an opposite outward upward circulatory direction toward and around the clothes, and act in cooperation with the interior of the tub to cause violently flowing opposed currents of liquid to meet and flow inwardly and downwardly toward the central portion of the tub, and substantially suspend the materials in the fluid while being washed, a rotary reciprocating drive shaft extending upwardly through the bottom of the tub into the interior thereof for supporting the impeller for movement in a fixed plane, and power means for rapidly reciprocating the shaft and impeller for the purposes set forth.''

inclined portion 55 of the dish-shaped member assists in this movement" ("outwardly and somewhat parallel to the axis of rotation of the gyrator", *i. e.*, upwardly—3/101-8).

As to the relation of the tub to the impeller, the claim specifies that the upper surface area of the base of the impeller is "considerably less than the horizontal cross-sectional area of the tub", the margin of the base being spaced "a substantial distance" away from the upwardly extending portion of the tub. There is not a word in the specification about any space between the tub and the impeller, much less any statement from which these dimensional limitations can be determined; they did not appear anywhere until claim 23 in its first form (claim 49) was inserted on January 28, 1932 (Nos. 76-7, III, 1221), approximately ten years after the application was filed and four or five years after the accused Easy and Hurley machines were on the market (Nos. 76-7, I, 328-9).

It is defendants' position with respect to this claim 23, that it is expressly limited to the dish-shaped disc impeller specifically described and illustrated in Snyder's patent, and is not infringed by defendants' washing machines which use the high center post type of impeller with a flat base taken from the prior art (see *post* pp. 69-70). If claim 23 is not limited to the dish-shaped disc impeller, then it is defendants' position that it does not differ in any significant way from claims 26 and 29 and is invalid for the same reasons that those claims are invalid (see *post* p. 70).

The Charge of Infringement

The charge of infringement in cases Nos. 76 and 77, is based upon the following:

1. Manufacture and sale by the Easy Washing Machine Corporation of washing machines made and sold by it and referred to as the Easy washing machine (Nos. 76-7, I, 171). The construction of this machine is illustrated in the drawing Exhibit 3-A (Nos. 76-7, II, 675; Off. I, 300).

2. Manufacture and sale by the Hurley Machine Company of washing machines made and sold by it and known as the Thor or Hurley washing machine. The construction of this machine is illustrated in the drawing Exhibit 4-A (Nos. 76-7, II, 676; Off. I, 300).

In Case No. 661, the charge of infringement is based upon the sale by defendant, General Electric Supply Corporation, of washing machines designated as General Electric washing machines "Model A. W. 19". (No. 661, Exh. 12, Off. I, 96), and illustrated in the drawing Exhibit 12-A (No. 661, II, 671; Off. I, 147) and other models illustrated in Exhibits 16, 16-A, 16-B, 16-C, 16-D, 16-E and 16-F (No. 661, II, 693-715; Off. I, 133-5), and also Exhibit 12-B (No. 661, II, 673; Off. 147-8). Exhibit 12 is asserted to be representative of these other models (No. 661, I, 133).

Infringement of apparatus claims 26 and 29 is admitted, if those claims are valid and are construed as we have construed them in the foregoing.

Claim 23 is in a different category. Infringement of this claim is denied (see *post* pp. 69-70).

SUMMARY OF ARGUMENT

1—The patent is wholly invalid and unenforceable by reason of plaintiff's neglect either to disclaim method claim 39 or to attempt to sustain it as valid.

2—Claims 26 and 29 (and also claim 23 unless that claim is restricted to the dish-shaped disc impeller, which defendants do not use) are anticipated by the patent to Davis 1,240,826 of 1917; by the patent to Doughty & Davis 1,496,305 of June 5, 1932; by the manufacture, use and sale under these patents of washing machines in the United States in the years 1917 to 1922 by the 1900 Company of Binghamton, N. Y.; by like manufacture, use and sale in

the years 1916 to 1919 of the Miller washing machines by William S. Miller of Meyersdale, Pa.; and by a number of still earlier patents on washing machines of the agitator or "gyrator" type, among which the British patent to Jardine of 1891 is particularly relied upon because it discloses the vertical center post type of impeller with a flat base used by defendants, as contrasted with the dish-shaped disc impeller of the Snyder patent.

3—Claim 23 is expressly limited to the dish-shaped disc impeller specifically described in Snyder's patent and is not infringed. If not so limited, claim 23 is invalid for the same reasons that claim 26 and 29 are invalid.

4—The opinion of the Eighth Circuit Court of Appeals discloses that the Court was misled to believe that the Snyder machine was uniquely differentiated from the prior art rubboard, peg dolly, etc., machines in which the clothes were cleaned, as Snyder says in his patent, by "being rubbed or drawn through the water by a dolly or other mechanism, or tumbled against the sides of the tub or rubbed against projections on the interior of the tub"; and erroneously found that the machine disclosed in the Davis patent, the machine disclosed in the Doughty & Davis patent, the commercial 1900 Company machines manufactured under those patents and the machine of the Jardine British patent of 1891 were machines of the rubboard type, and therefore not anticipations of the Snyder patent claims.

Although plaintiff argues that this Court is bound by the concurrent findings of the trial judge and of the Eighth Circuit Court of Appeals in case No. 661 (Pltf. brief p. 35), our argument is presented on the understanding that where conflicting decisions as to validity have been reached by two circuit courts of appeal, this Court will independently

consider the question "as to which of the decisions upon this question of fact, in the light of the prior art, is based upon the sounder reasoning". *Thompson Spot Welder Co.* v. *Ford Motor Co.*, 265 U. S. 445, 447; *Concrete Appliance Co.* v. *Gomery*, 269 U. S. 177, 180. The same rule has been applied where the conflict resided solely on the question of infringement. *Sanitary Refrigerator Co.* v. *Winters, et al.*, 280 U. S. 30, 35-6.

ARGUMENT

POINT I

The patent is wholly invalid and unenforceable by reason of plaintiff's neglect either to disclaim method claim 39 or to attempt to sustain it as valid.

The Snyder patent originally contained three method claims (claims 1, 38, and 39) defining in slightly different terms the method of washing described in the specification. In *Maytag Co.* v. *Brooklyn Edison Co., Inc.*, 86 F. (2d) 625, plaintiff charged infringement of claim 38. In that case the Court of Appeals for the Second Circuit held claim 38 (as well as apparatus claims 23 and 26) invalid. Following denial by this Court of a writ of certiorari in the *Brooklyn Edison* case, plaintiff disclaimed claim 38 and also disclaimed method claim 1, asserting that through inadvertence, accident, or mistake, the patentee had in those claims claimed more than that of which he was the original or first inventor or discoverer (Nos. 76-7, I, 46). The third and remaining method claim (claim 39) was not disclaimed. Neither is it relied upon in the cases at bar.

After the decision in the *Brooklyn Edison* case, plaintiff had only a conditional right to maintain other suits on the patent, a right conferred by statute and dependent on plaintiff's compliance with the statutory conditions.

(R. S. 4922, 35 U. S. C. 71*) Defendants assert that plaintiff has lost that right by failing to comply with one of the statutory conditions in that it "unreasonably neglected" to file a disclaimer of method claim 39.

It is our position that claim 39 defines the same method set forth in claim 38, and also in claim 1; that plaintiff was put on notice by the findings and by the decree in the *Brooklyn Edison* case that claim 39, like claim 38, claimed more than that of which the patentee was the first inventor or discoverer; and that plaintiff's neglect to make disclaimer thereof was unreasonable because, while retaining the claim to a method declared to be old, plaintiff failed to bring suit to sustain the claim as valid.

This Court has declared such an effort at vindication to be the necessary course for one who would justify a failure to disclaim. It said in *Ensten* v. *Simon, Ascher & Co.*, 282 U. S. 445, 455:

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*71. Suit For Infringement Where Specification Too Broad. Whenever, through inadvertence, accident, or mistake, and without any willful default or intent to defraud or mislead the public, a patentee has, in his specification, claimed to be the original and first inventor or discoverer of any material or substantial part of the thing patented, of which he was not the original and first inventor or discoverer, every such patentee, his executors, administrators, and assigns, whether of the whole or any sectional interest in the patent, may maintain a suit at law or in equity, for the infringement of any part thereof, which was bona fide his own, if it is a material and substantial part of the thing patented, and definitely distinguishable from the parts claimed without right, notwithstanding the specifications may embrace more than that of which the patentee was the first inventor or discoverer. But in every such case in which a judgment or decree shall be rendered for the plaintiff no costs shall be recovered unless the proper disclaimer has been entered at the Patent Office before the commencement of the suit. But no patentee shall be entitled to the benefits of this section if he has unreasonably neglected or delayed to enter a disclaimer. (R. S. Sec. 4922; 35 U. S. C. 71.)

"In certain definitely defined circumstances, and to the end that the mistaken but honest inventor may obtain relief from the old rule, the disclaimer provisions permit him to deprive the public temporarily of complete freedom from the assertion of a monopoly apparently valid, but not so in fact. When a competent court has declared his pretensions without sufficient foundation, we think good faith and the spirit of the enactment demand that he act with such promptness as the circumstances permit either to vindicate his position or to relieve the public from further evil effects of his false assertion. But for the benign provisions of the statute, such an assertion would invalidate the whole patent; and these provisions were intended to protect only those who by prompt action either seek to overturn an adverse ruling or retreat from a false position."

This defense was advanced on behalf of the Hurley and Easy companies in cases Nos. 76 and 77 but was not passed upon either by the trial court or by the Court of Appeals, because both courts held the apparatus claims 23, 26, and 29 (the only claims relied upon by plaintiff) invalid for anticipation and want of invention. The Court of Appeals for the Eighth Circuit rejected the defense in case No. 661 upon the ground that "Method Claim 39 did not define the same method set forth in Claim 33" (100 F. (2d.) 218, 224, No. 661, IV, 1897), the only method claim in suit in the *Brooklyn Edison* case and therefore the only method claim specifically held invalid.

This presents an issue of fact, evoking an inquiry as to what is the method of claim 39 and what is its relation to the method of claim 38 and to the method found by the court in the *Brooklyn Edison* case to be old.

The subject matter of claim 39 is the single method disclosed in the Snyder patent. There are not different methods disclosed, or several variants of a basic method, or different groupings of method steps. There is a single method comprising a series of steps, no one of which can be omit-

ted. The steps defined are the immersion of the clothes and the vigorous agitation of the water, forcing it around the prescribed course, toward and through and around the fabrics, with the result of causing the clothes to be freely moved about by the action of the water and cleansed while thus moved.

This operation is what the Court of Appeals in the *Brooklyn Edison* case defined the Snyder method to be when it compared it with the prior methods. That court said (86 F. (2d) 625, 627):

> "Snyder's claim is that an improved method of washing may be effected by immersing the fabrics in soapy or other cleansing fluid in a tub and then impelling the washing fluid about the tub in a predetermined course, specified so 'vigorously and rapidly' that the movement imparted to the wash water in turn imparts a similar movement to the fabrics, in which movement the fabrics are distorted and manipulated by the water action and contacts between the clothes and the impeller also occur, whereby the clothes are washed partly by water action and partly by rubbing."

It was the method thus defined which the Court said "the art already knew" (*id.* 627) as it proceeded to show by reference to the Davis patent and machines, as well as others. It said (*id.* 628):

> "'Thus Davis taught the appellee's method of washing fabrics by putting the clothes into a smooth-walled tub containing washing fluid and then setting up a circulation of the water through and around the clothes and about the tub by driving the upper portion of the water outwardly toward the wall of the tub, then downwardly within the tub adjacent to the wall thereof, and thence upwardly through the fabrics in the tub and to the center of the space below the agitator.'"
>
> * * * * *
>
> "Tests made demonstrated the movements of the wash water on the fabrics to be of the same character as

that made by the appellee's machine with the inverted impeller. Clothes were washed by the rubbing or pressure of the vanes coupled with the circulation of the water in the tub directed and forced by these vanes. Thus, in the washing operation, the movement of the water in the Davis patented machines does in turn impart a similar movement to the fabric and thus anticipated the method of washing described in the patent as claim 38."

These findings left no room for differentiation among claims, for they were in substance a holding that the patent disclosed no novelty of method whatever.

Yet plaintiff asserts a differentiation, and the Eighth Circuit Court of Appeals found one, in the fact that the two claims differ in their statements of result, particularly in that claim 39 says that the "fabrics are caused to be freely moved about by the action of the fluid". The two statements of result are:

38.	*39.*
"thereby substantially suspending the fabrics in the fluid and cleansing them while thus suspended".	"whereby the fabrics are caused to be freely moved about by the action of the fluid and cleansed while thus moved."

The free movement of claim 39 could be thought of as a distinction in result only if the method defined in claim 38 was one in which the clothes are not freely moved about. Plaintiff makes no such pretense. Its whole argument in support of the apparatus claims here in suit is filled with the assertion that the "substantial suspension" of the clothes is not a static condition but is the necessary incident of the action of the water in moving the clothes, and requires such movement. Both claims say that the clothes are "substantially suspended *by the action* of the fluid". They are not hung on hooks in the tub but are "substantially suspended" *because freely moved.* The

"suspended" fabrics of claim 38 are therefore not different from, or alternative to, the "freely moved" fabrics of claim 39. Suspension and movement are inseparable concomitants of the steps of the method, which are set forth in both claims with differences in verbiage only. The same steps must give the same result.

In no event can this difference in the statement of result relieve plaintiff from the effect of the decision in the *Brooklyn Edison* case. The Court of Appeals there held that "the movement of the water in the Davis patented machine does in turn impart a similar movement to the fabric * * *". That finding of a movement of the fabric bars the differentiation now attempted. It effectively put plaintiff on notice of the anticipation of every claim to the disclosed method, even to the movement of the fabrics.

Plaintiff itself, in the *Brooklyn Edison* case, took the position that a statement of the movement of the fabrics was not a true differentiation between claims to the method, thereby showing both that there is no reality in its present position and that at the time of the *Brooklyn Edison* case it was aware that such a statement could not be effective to distinguish claim 39 from claim 38. There, in reference to a patent office decision involving claim 1, which like claim 39 includes a statement of the movement of the fabrics, plaintiff proposed to the trial court, and that court adopted as a part of its Finding of Fact No. 31, the following statement (Appendix to plaintiff's brief herein, page 11):

> "The verbiage of said Claim 1 quoted in said decision is different from the verbiage of Claim 38, *but the same method or process is equally embodied in both.*"

If there were, as the court in No. 661 stated, a fiction that "Each claim of a patent is deemed to be for a separate invention", citing *Leeds & Catlin Co.* v. *Victor Talking Machine Co.*, 213 U. S. 301, such a fiction would have to yield here to the fact that these two claims 38 and 39 do have a single subject matter and are not "definitely

distinguishable". Actually there is no such fiction or presumption. In the *Leeds & Catlin* case this Court dealt with a question under R. S. 4887, 35 U. S. C. 32, which provides that a United States patent "granted for an invention which has been previously patented in a foreign country shall be limited so as to expire at the same time with the foreign patent, . . ". It was held that the parts of a patent could be segregated to permit the statutory termination to apply only to the part corresponding to the foreign patent. That was the occasion for pointing out that a patent may embrace more than one invention. The statement that "Claims are independent inventions", taken in such a context, means only that different claims *may* cover different inventions. Whether or not they *do* is always to be settled by reading the claims in the light of the specification.

It is not necessary to settle here the question whether the disclaimer of claims 1 and 38 was an admission that they were anticipated. The court below in No. 661 thought it was not. As it seems to us, this is in error, because it regards disclaimer as a generally available means of relinquishing a part of the patent monopoly. Actually it is a special, statutory means of curing a defect in a patent by removing an excess of claim. Voluntary relinquishment of rightful monopoly is effected otherwise, by dedication to the public or simple failure to sue. Disclaimer is a remedy, implying an ill, and is available only when the statutory conditions are met, one of which is that the patentee shall have "claimed more than that of which he was the original or first inventor or discoverer." (R. S. 4917; 35 U. S. C. 65). When plaintiff here filed its disclaimer it fulfilled this condition by asserting that it had reason to believe that in claims 1 and 38 the patentee claimed more than he invented or discovered (Nos. 76-7; I, 46). This Court has expressed the view that such a disclaimer meant what it said. *Dunbar* v. *Myers,* 94 U. S. 187, 193, 194; *Union Metallic Cartridge Co.* v. *U. S. Cartridge Co.,* 112 U. S. 624, 645; *Collins Co.* v. *Coes,* 130 U. S. 56, 68.

But it is not necessary to say here that claim 39 is invalid *because* of the disclaimer of other claims to the same method. If the disclaimer did not admit a lack of right in the method disclaimed, it means at best only that claim 39 could be good if promptly put in suit so that it would not stand as a threat, never exposed to adjudication. Plaintiff chose to withhold it from suit, against the day when it might lose its apparatus claims. The vice of that inactivity, contrary to the public interest, is sufficient to invalidate the patent, whatever may be the meaning of the disclaimer. The defense is based not on plaintiff's *action* in filing the disclaimer of claim 38, but on its *inaction* in failing to disclaim or to sue on claim 39 after it had been advised by the decision in the *Brooklyn Edison* case that the single method disclosed in the patent was a method of which Snyder "was not the original and first inventor or discoverer".

Plaintiff's failure to take any action as to claim 39 is not justified by the decision in *Triplett* v. *Lowell,* 297 U. S. 638. In that case this Court upheld the right of a patentee to relitigate claims which had previously been declared invalid. But it was specifically stated, citing *Ensten* v. *Simon, Ascher & Co., supra,* that a different question is presented where the claims adjudicated as invalid are abandoned, whether by a tardy disclaimer or otherwise, and a second suit is brought to restrain infringement of *other* claims (p. 646).

Plaintiff makes some suggestion of justification on the score that the necessity of disclaimer or prompt suit arises only with respect to claims specifically adjudicated, and does not extend to other claims even though they differ immaterially and confer the same monopoly (br. p. 110).

But that view fails to regard the substance of things and makes the operation of the statute at best a thing of chance incidence, inoperative against those who happen to have withheld a claim like the one adjudicated but operative against those who lack such a reserve. At worst, it opens

a way for making a pretense of compliance with the law of disclaimer, while defeating its purpose of protecting the public right to know the patent owner's position with respect to subject matter judicially determined to be old.

This purpose requires that the necessity of action by the patent owner extend to all claims not "definitely distinguishable" from those adjudicated and equally within the scope and effect of the Court's findings as to the prior art. The disclaimer statute does not mention claims but has regard only to "a material and substantial part of the *thing* patented," which may be the subject of one or more claims, and is worded to emphasize that the "part" disclaimed and the "part" retained must be "definitely distinguishable" (R. S. 4922; 35 U. S. C. 71). A disclaimer relieves the public in no way when there is left in the patent a claim which enables the patent owner to maintain a lurking threat of the same monopoly.

Here, the subject matter of claim 39 is not "definitely distinguishable" from that of claim 38. The two claims are not directed to different material and substantial parts of the thing patented but to the same part, because the method of both claims is the single method disclosed by Snyder, the method which the Court of Appeals found to be old. It is that finding as well as the decree of invalidity of a claim identical in substance, that put Maytag on notice that claim 39 was invalid, thus creating the necessity of prompt action, either by disclaimer or by suit, if the plaintiff were to have the benefit of the statutory right to maintain suits on other parts of the patent. That right was lost when, without seeking vindication, plaintiff continued under claim 39 its pretensions to a monopoly of the method. The "benign provisions" of the statute (R. S. 4922, 35 U. S. C. 71) "were intended to protect only those who by prompt action either seek to overturn an adverse ruling or retreat from a false position". *Ensten* v. *Simon, Asher & Co.*, 282 U. S. 445, 455.

POINT II

The patent is anticipated by the agitator or "gyrator" type washing machines of the prior art.

The record contains, as evidence of machines of the agitator or "gyrator" type prior to Snyder, a number of patents which show machines of that type in various forms. Because the Second Circuit Court of Appeals found in the agitator type washing machine disclosed in the Davis patent 1,240,826 of 1917 and in the machines manufactured and sold thereunder a complete anticipation of the Snyder machine and Snyder's way of operating the machine (86 F. (2d) 625, 627), we proceed at once to a consideration of that patent and of the related Doughty & Davis patent 1,496,305 granted June 3, 1924 on an application filed April 8, 1922 as an improvement upon the machine of the earlier Davis patent. We defer consideration of still earlier examples of washing machines of the agitator type, and also the consideration of prior manufacture, use and sale in the United States of anticipating washing machines, to subsequent portions of our argument (see post pp. 43 and 55).

The Davis Patent 1,240,826

In patent 1,240,826 (No. 661, II, 1056-8, Off. I, 176; Nos. 76-7, II, 918-20, Off. I, 347) issued to George L. Davis on September 25, 1917, on an application filed February 29, 1916, the patentee says (1/8-35):

> "This invention relates to agitators for washing machines, the same being of the disk type designed for rotation back and forth within the tub of a washing machine.
>
> One of the objects of the invention is to provide an agitator having a novel arrangement of ribs or vanes on the lower or active face thereof and which operate to direct the water outwardly by centrifugal force, thereby setting up a circulation downwardly within the

tub adjacent the wall thereof, and thence upwardly through the fabrics in the tub and to the center of the space below the agitator.

A further object is to provide an agitator designed to float upon the water contained within the tub and the ribs on which will not only serve to set up a circulation of water as stated, but will also rub lightly upon the fabrics without danger of injuring them."

It will be observed that the arrangement and mode of operation here disclosed is one in which the impeller is mounted overhead so as to depend into the liquid from the upper portion of the tub—the arrangement referred to by Snyder in his patent at page 3, lines 29-41, and there said to be "within the contemplation of" his invention; that the Davis impeller, like Snyder's, is oscillated—"designed for rotation back and forth within the tub"; that the directed water currents flow in precisely the path described by Snyder in lines 41-44 of page 3 of his patent; that the agitator is "designed to float upon the water contained within the tub" and that it serves not only "to set up a circulation of water as stated" but also to "rub lightly upon the fabrics without danger of injuring them".

It is worth while to pause at this point to observe how that light rubbing occurs in such a machine. Since the impeller is floating upon the water it can make rubbing contact with the clothes only to the extent that the clothes are buoyed up by the water. It is the suspension of the clothes in the moving water currents that causes the ribs of the agitator to "engage lightly with the fabrics" (1/26-7; 2/5-7) beneath the floating agitator.

The machine described in the Davis patent consists of a tub 1; a wooden agitator or impeller 2, which floats on the water in the tub and has eight depending ribs or vanes, 4 and 6, projecting into the water toward the clothes; and power means (a shaft 3 connected with a suitable motor not shown) by which a rotary oscillating movement may be im-

parted to the impeller. The tub is a smooth-walled tub without corrugations or rubbing projections. The impeller is a flat disc free of obstructions other than the ribs. The ribs or vanes are regularly spaced and are disposed radially on the lower face of the disc. They extend from the rim of the disc toward the center; six are shorter than the other two; and all are beveled at their inner ends, leaving the center of the disc clear.

The patentee describes the operation of his machine as follows (1/92 to 2/7):

> "In using the agitator the tub is partly filled with water, after which the disk 2 is placed above the fabrics in the tub so as to float upon the water. The disk is then rotated backwardly and forwardly and during this movement the ribs 4 and 6 will have two functions. First they will throw the upper portion of the water by centrifugal force toward the wall of the tub, thus creating a suction under the center of the disk, with the result that the water displaced upwardly by this suction will force its way through the fabrics and will create a circulation inwardly adjacent the bottom of the tub and downwardly adjacent the wall thereof. Thus the fabrics will be thoroughly cleaned without being pulled and distorted, the circulation of the water through the fabrics resulting in the removal of the dirt therefrom. In addition to the foregoing the ribs will act as rubbing elements inasmuch as they will engage lightly with the fabrics thereunder."

The patent contains a single claim, as follows:

> "In a washing machine the combination with a tub, of an agitating disk mounted to float on water in the tub, radial vanes upon the lower face of the disk adapted, when the disk is rotated, to direct the upper portion of the water outwardly by centrifugal force toward the wall of the tub and to draw water upwardly

from the center of the bottom thereof, and a driving shaft for actuating the disk, said disk being freely movable vertically."

From this disclosure it will be seen that Davis anticipated Snyder in the disclosure of a washing operation in which the clothes are thoroughly cleansed by setting up and maintaining in a wash tub a forced circulation of the cleansing fluid and the clothes suspended therein, the washing being effected partly by the water action and partly by light rubbing contacts between the clothes and the blades of the agitator. Because the Davis impeller is not rotated continuously in the same direction but is "designed for rotation back and forth within the tub", the circulation in the Davis patent is precisely the "gyratory" circulation set up within the tub of the Snyder machine and therein described as "in the nature of a gyratory action or movement and appearing to be that of a helix around a ring" (1/88-90).

The washing machine of the Davis patent anticipates Snyder, because it has in combination the three mechanical elements, to wit: (1) a tub, (2) an impeller with blades projecting toward the clothes in the tub, and (3) power means for reciprocating the impeller, the tub and impeller being so constructed and arranged as to cooperate while the impeller is in operation to set up the oscillating circulatory movement of the fluid contents of the tub described in the Snyder patent at page 3, lines 41-44 thereof and in the Davis patent at page 1, lines 16-21 and again at page 1, lines 104-112.

In the Davis machine the impeller is mounted to depend into the water from the top of the tub instead of being mounted in the bottom of the tub. But, as we have seen, Snyder points out in his specification that although the drawing shows an impeller mounted in the bottom of the tub

> "* * * it must be evident that all desirable arrangements are within the contemplation of this invention, such, for instance, as the mounting of the impeller so as to depend into the liquid from the upper portion of the tub, thereby bringing about the consequent reversal in the flow of the fluid through the tub." (3/29-44).

The Second Circuit Court of Appeals made no mistake, we submit, when it found that (86 F. (2d) 625, 628):

> "Thus Davis taught the appellee's method of washing fabrics by putting the clothes into a smooth-walled tub containing washing fluid and then setting up a circulation of the water through and around the clothes and about the tub by driving the upper portion of the water outwardly toward the wall of the tub, then downwardly within the tub adjacent to the wall thereof, and thence upwardly through the fabrics in the tub and to the center of the space below the agitator."

and when it held that machines of the Snyder type "were disclosed in the Davis patent, No. 1,240,826, September 25, 1917" (p. 627).

The Doughty & Davis Patent

United States patent 1,496,305 (No. 661, II, 1040-5, Off. I, 176; Nos. 76-7, II, 932-6, Off. I, 347) issued to Herman W. Doughty and George L. Davis on June 3, 1924, on an application filed April 8, 1922. In this patent the patentees say (1/8-13; 1/21-31):

> "This invention relates to washing machines for washing clothes, and particularly to machines of this character which are operated by power as distinguished from hand-operated machines.
>
> • • • • • •
>
> The particular type of machine illustrated and described herein is what is sometimes called the 'agitator'

> type. That is to say, it includes a stationary tub for receiving the clothes to be washed and the cleansing fluid, such as soapy water, and a movable 'agitator' within the tub and adapted by its movement to agitate the cleansing fluid and the clothes and thus cause the cleansing fluid to penetrate the clothes and clean them."

The machine described consists of a tub 12, a bottom-positioned agitator 13 equipped with six upwardly projecting vanes or ribs 14, and power means comprising a shaft 15 projecting through the bottom of the tub and connected with a suitable motor whereby an oscillating movement is imparted to the agitator (1/75-99). The interior of the tub is smooth throughout without corrugations or rubbing projections. The bottom-positioned agitator is a flat disc free of obstructions other than the ribs or vanes.

Thus the Doughty & Davis patent discloses a washing machine which, like Snyder's machine and like the machine of the earlier Davis patent, has in combination the three mechanical elements, to wit: (1) a tub, (2) an impeller with blades projecting toward the clothes in the tub and (3) power means for reciprocating the impeller, the tub and impeller being so constructed and arranged as to cooperate while the impeller is in operation to set up the same circulatory movement of the fluid contents of the tub that is described in Snyder's patent at page 1, lines 80-91. A bottom-positioned impeller has been substituted for the overhead inverted impeller of the Davis patent, thereby bringing about the consequent reversal in the flow of the fluid through the tub that Snyder's patent describes as equivalent. This bottom-positioning of the impeller is not put forward in the Doughty & Davis patent as anything new. It is referred to as an alteration of convenience (1/32-42) and the fact "that agitators or dollys have heretofore been placed adjacent the bottom of the stationary tub of a washing machine" (3/20-22) is recognized.

We submit that this disclosure amply supports the finding of the Second Circuit Court of Appeals (86 F. (2d) 625, 628) that the machine of this Doughty & Davis patent, "with the impeller in the bottom, applied the same movement or method for the flow of the washer fluid" and "the same circulation movement of the water and the fabrics" as in Snyder's patent; and that "It too anticipated the patent."

The patented novelty of the disclosure of the Doughty & Davis patent, which makes no pretence that a washing machine with a bottom-positioned oscillated agitator was new, lies in the unsymmetrical arrangement of the agitator vanes which is the subject of the claims of the patent. The purpose of this arrangement of the vanes is expressed as follows (2/9-35):

> "Referring now particularly to Fig. 2, it will be noted that the vanes or ribs 14 are unsymmetrically arranged. The purpose of so arranging the vanes is that we have found that if the agitator surface is symmetrical there is a marked tendency for a single one of the many pieces of laundry in the tub to cling to the agitator, an action which interferes seriously with the efficiency of the machine in washing. This action is apparently due to the fact that the oscillation of the agitator sets up currents in the fluid contents of the tub which move centrifugally of the agitator. And if the agitator is symmetrical these currents act with substantially equal force throughout the periphery of the agitator and tend to stretch the most available piece of laundry over the surface of the agitator and keep it there.
>
> "We have discovered, however, that by arranging the agitator unsymmetrically the equality of the currents is disturbed and as a result the piece of cloth in contact with the agitator will not be retained there but will be moved off to one side by the unequal currents acting upon it."

This unsymmetrical arrangement of the agitator blades which constitutes the claimed improvement of the Doughty & Davis patent does not lessen the effect of the Doughty & Davis patent as an anticipation of Snyder, as plaintiff argues and the Eighth Circuit Court of Appeals mistakenly found (No. 661, IV, 1895). On the contrary it serves to identify the machine of the Doughty & Davis patent with the Snyder machine. As we explain in another place (*post* pp. 79-80) it takes care of a difficulty which inhered also in the dish-shaped disc impeller of Snyder's patent and led to the abandonment by plaintiff of that type of impeller in favor of the high centerpost impeller (No. 661, I, 102-3, 114, 137-8; II, 1031) taken from much earlier agitator type washing machines of the prior art, such as the Jardine patent, for example (post pp. 56-9, 63-4, 69-70).*

The 1900 Company Machines

The Second Circuit Court of Appeals further held that there was ample evidence to show that commercial machines were manufactured and sold by the 1900 Company under the Davis patent 1,240,826 and under the Doughty & Davis patent 1,496,305 (86 F. (2d) 625, 628) before Snyder.

Beginning in 1917, five years prior to the filing of Snyder's application on June 14, 1922, agitator type washing machines were manufactured in progressively improved form, and marketed, by the 1900 Washer Company of Binghamton, New York, under the supervision of Mr. George L. Davis patentee of the Davis patent. These machines are identified in the record as (1) the 1900 Company machines Form 1, Form 2 and Form 3 made with the inverted overhead disc agitator of the Davis patent; (2) Form 4 made with the bottom-positioned agitator

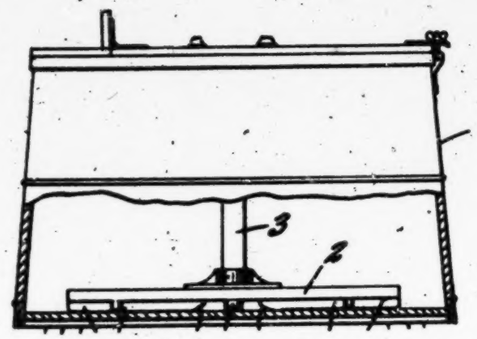
*Plaintiff asserts a date of invention for Snyder earlier than the Doughty and Davis patent and the Form 4 machine made thereunder. Plaintiff's evidence on this point is discussed in an addendum at the end of this brief (post pp. 95-101).

shown in the Doughty & Davis patent 1,496,305 (No. 661, II, 1043); and (3) the single-vane agitator machine as shown in Mr. Davis's improvement patent 1,748,442 (No. 661, II, 995).

On the opposite page we reproduce, from the record, illustrations showing this series of agitator type washing machines successively manufactured and marketed by the 1900 Company. We have also illustrated on this sheet a series of four washing machines successively manufactured by plaintiff under the Snyder patent, and improvements thereon, in the years 1922 to 1928. In addition, we have illustrated on this sheet for convenient reference the agitators at present used in the commercial machines of (1) the 1900 Company; (2) The Maytag Company; and (3) the defendants. By comparing these illustrations and the dates when the respective machines were marketed, it will be observed that the 1900 Company was about five years ahead of plaintiff in the marketing of this agitator or "gyrator" type of machine and that they both progressively improved the specific form of their commercial machines as the manufacture and sale went on up to the time when they both adopted the high center post type of agitator taken from the prior art.

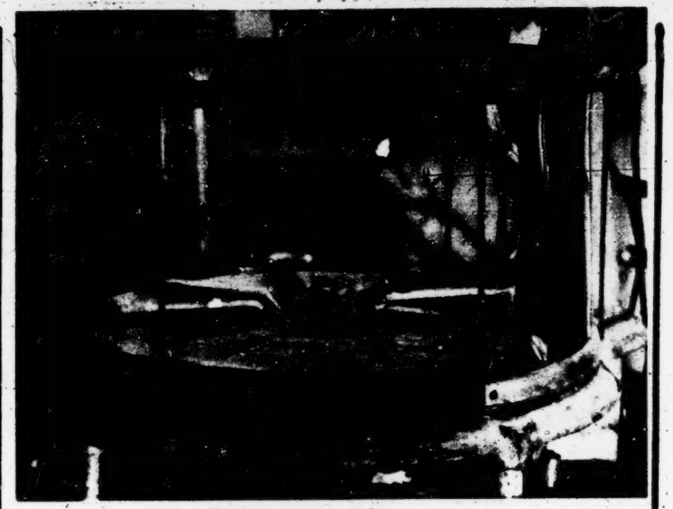
The manufacture of machines embodying the invention of the Davis patent by the 1900 Company began in 1917. The first of these machines, which had the overhead inverted agitator described in the Davis patent (No. 661, I, 301, 326 and Deft. Exhs. 20 and 27, Off. I, 422, 338), were known as the 1900 Company Form 1, Form 2, and Form 3 Agitator washers. The Form 1 and 2 machines were equipped with wooden tubs having corrugated sides. The Form 3 machines were equipped with metal tubs, having smooth sides. In other respects the machines were substantially identical (Nos. 76-7, I, 392). They were manufactured and sold in considerable quantities from 1917 to 1921, as many as 5,000 machines per year being produced at the highest peak (No. 661, I, 301, 362, 367).

1900 COMPANY MACHINES

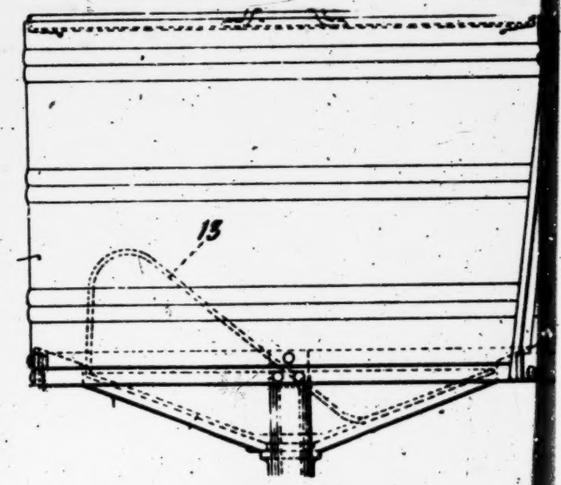


Form 1 machine of the Davis patent
(No. 661, II, 1056, Off. I, 176)
Marketed beginning in 1917
(No. 661, I, 362)

Form 3 smooth walled copper tub machine
(No. 661, III, 1853, Off. I, 449)
Marketed as early as 1919
(No. 661, I, 339)

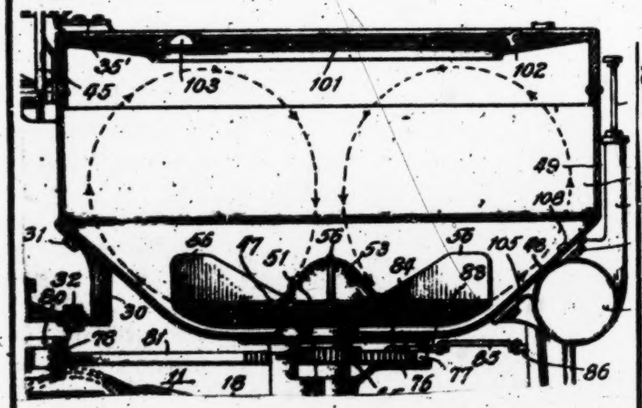


Form 4 machine
(No. 661, III, 1843, Off. I, 449)
Marketed beginning in 1921
(No. 661, I, 297-8, 330-1, 354, 364)

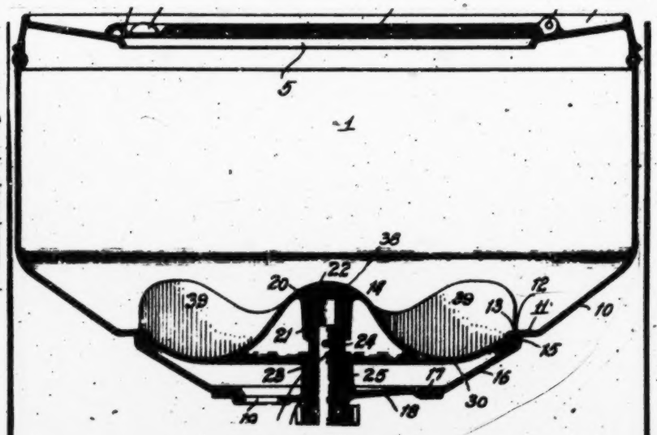


Single vane agitator machine
(No. 661, II, 996, Off. I, 338)
Marketed beginning in 1922
(No. 661, I, 324, 336, 376)

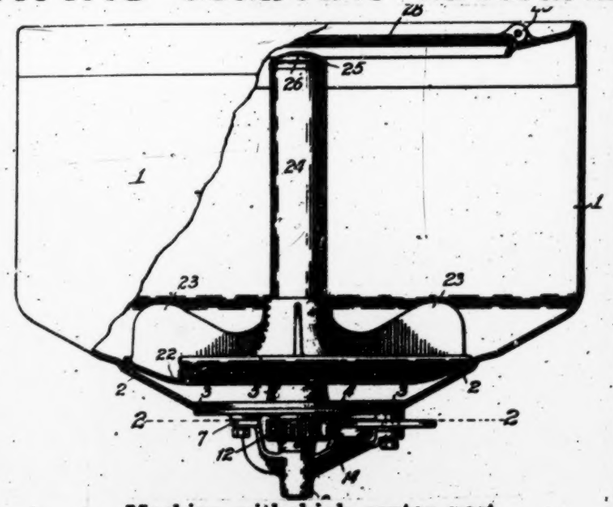
MAYTAG COMPANY MACHINES



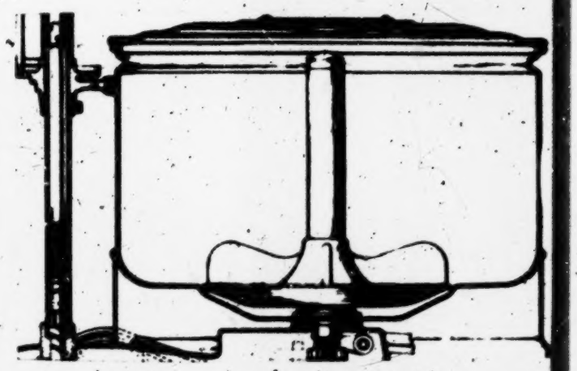
Machine of patent in suit
(No. 661, II, 564, Off. I, 80)
Marketed beginning in 1922
(No. 661, I, 97, 136)



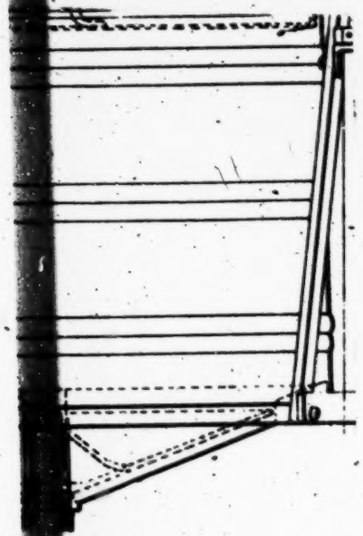
Machine with agitator well
(No. 661, II, 950, Off. I, 337)
Marketed beginning in Aug. 1922
(No. 661, I, 101, 136-8)



Machine with high center post
(Nos. 76-7, II, 1067, Off. I, 344-7)
Marketed beginning in 1924
(No. 661, I, 103-4, 136)



Machine with round flat bottomed tub
(No. 661, II, 645, Off. I, 95)
Representative of machines
Marketed beginning in 1928
(No. 661, I, 95, 111)



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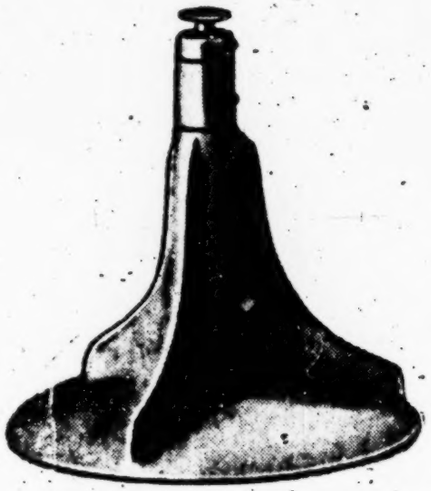
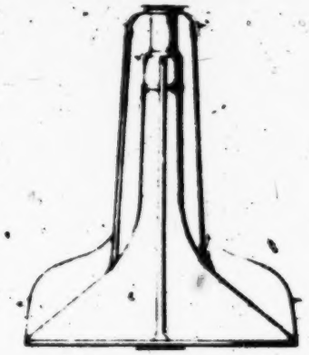
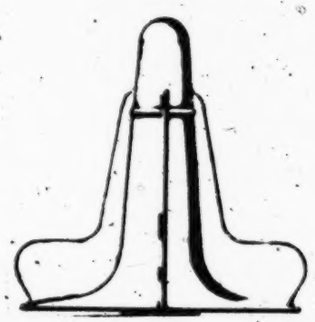
6, Off. I, 338)
ning in 1922
4, 336, 376)



Agitator of 1900 Company modern machine
(No. 661, III, 1803, Off. I, 338)
Marketed beginning in 1929
(No. 661, I, 320)



Agitator of defendant's accused
machine in case No. 76
(Nos. 76-7, II, 676, Off. I, 300)



Agitator of defendant's accused
machine in case No. 77
(Nos. 76-7, II, 675, Off. I, 300)

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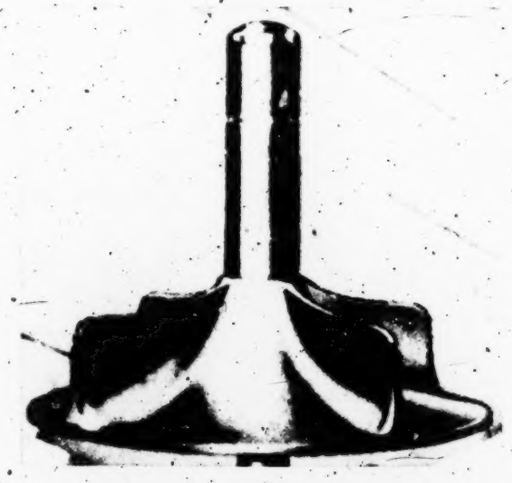
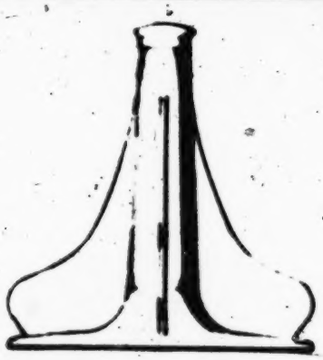
Off. I, 95)
machines
ng in 1928
, 111)



Agitator of modern Maytag machine
abandoning the dish-shaped disc
(No. 661, II, 1031, Off. I, 114)
Marketed beginning in 1932
(No. 661, I, 102-3, 114, 137-8)



Agitator of defendant's accused
machine in case No. 661
(No. 661, II, 671, Off. I, 147)

In the year 1921 the 1900 Company put upon the market the Form 4 machine.* In this machine the agitator was mounted in the bottom of the tub with the vanes projecting upwardly into the water, as in the specific arrangement illustrated in the drawings of Snyder's patent. The construction of this Form 4 machine is illustrated and described in the Doughty & Davis patent 1,496,305 (No. 661, II, 1039). One of the early machines is in evidence as Defendant's Deposition Exhibit 4, now marked Defendant's Exhibit 29 (No. 661, I, 330, Off. I, 338).

In 1922 the Form 1, Form 2, Form 3 and Form 4 machines were superseded by a machine having an agitator with a single vane (No. 661, I, 324, 336, 376, Davis patent 1,748,442, II, 995, Off. I, 338).

At the present time the single vane machines are still being sold, but the principal product of the 1900 Company is the machine with the high center post impeller (No. 661, I, 324, 371-2; Deft. Dep. Exh. 12, now part of Deft. Exh. 38, III, 1801-3, Off. I, 338). The 1900 Company is now authorized by an exchange of licenses to operate under the Snyder patent in suit (No. 661, I, 377-8).

The Washing Action of the 1900 Machines

The officers and engineers of the 1900 Company who manufactured and sold the Davis machines, including Mr.

*Development of this Form 4 machine began in September 1920 (Doughty, No. 661, I, 340, 343). The first completed machine was tested on February 8, 1921 (No. 661, Doughty, I, 340-1; Behan, I, 363; Deft. Dep. Exh. 9, now part of Deft. Exh. 38, III, 1733, Off. I, 338), and the machine was demonstrated to Mr. Merrell Clark and described in a letter written to him by Mr. Doughty on March 23, 1921 (No. 661, III, 1725-29). Preparations for manufacture were made in the summer of 1921. Machines made from master patterns were subjected to trial by customers in August, 1921 (No. 661, I, 343) and the first machines were shipped on October 8, 1921 (No. 661, I, 297, 330-1). About 700 of them were sold (No. 661, I, 331).

Davis himself who was superintendent, Mr. Doughty, mechanical engineer and joint patentee with Davis of the construction embodied in the Form 4 machine and Mr. Behan, general manager, testified under circumstances that give full assurance that their testimony was not colored in defendant's favor.*

Mr. Behan testified, on cross examination by plaintiff's counsel, that when he came with the 1900 Company in the Fall of 1918 he "found that they had worked out a principle of washing clothes" which he said he could best describe by constrasting it with the operation of the milk-stool type of peg dolly machine which washed the clothes by "this so-called torsional method or twisting method coupled with the corrugated tubs", and he said (Nos. 76-7, I, 369):

> "The 1900 advertised principle of washing was that it did not resort to this twisting method but they had developed a principle by which the clothes were slightly rubbed which was easy on the fabrics—much more so than their competitors and at the same time depended in conjunction with this rubbing method on the action of the water for assisting in turning over the clothes and exposing a greater surface of the clothes or a continuous different surface of the clothes to an agitator. In other words, the clothes were washed by the rubbing pressure of the vanes coupled with the

---

*Mr. Behan who was general manager and president of the 1900 Company until 1934 (No. 661, I, 362), testified that the 1900 Company is licensed under the Snyder patent in suit, and that the plaintiff Maytag Company is in turn licensed under the Davis patent 1,738,442 (No. 661, I, 378). The details of the license agreement are not in evidence, but it is clear that by virtue of the license the 1900 Company has a right to participate in the asserted monopoly of the patent in suit, and that plaintiff likewise has a right to participate in the asserted monopoly of the Davis patent.

circulation of the water in the tub directed and forced by these vanes."

Mr. George L. Davis, patentee of the Davis patent, under whose supervision as superintendent, and in recent years plant manager, the 1900 machines were manufactured (No. 661, I, 296), described the water action of the Form I, Form 2 and Form 3 machines as follows (No. 661, I, 301):

> "The water action in the Form 1 agitator was centrifugal, in that it was thrown outward at the top to the sides of the tub, then downward to the bottom, then inward to approximately the center, then upward to the agitator, and outward again. I believe the water action in the Form 2 was substantially the same. It was the same in Form 3" (see Mr. Davis' testimony to the same effect in cases 76-7, I, 401).

Comparing the water action in the Form 1, Form 2 and Form 3 machines with the water action described in his patent, Mr. Davis said (No. 661, I, 326):

> "I believe the water action in each of those forms 1, 2 and 3 machines is substantially like that described in my patent No. 1,240,826 . . .
>
> "The effect of the water action in the Exhibit 103 [now Defendant's Exhibit 20, the Form 3 machine] is to force the clothes through the circulation generally. The water currents carry them out to the tub sides and down, then along the bottom of the tub towards the center; from there up to the agitator again" (see also Nos. 76-7, Davis, I, 401-2).

Testifying on cross examination as to how washing was effected in the Form 1 machines, Mr. Davis said (No. 661, I, 316):

> "It is my opinion that the water action is the main washing or cleansing factor.

I believe it is due to the fact that the clothes are circulated around and around, and the water is forced through them, which naturally forces the clothes against the tub sides and the bottom, so that they are flexed and bent. It is my recollection that when the machine was loaded properly it washed all the clothes very well. By 'loaded properly' I mean not too many clothes for the amount of water. So that the mass was fluid".

The action of the 1900 Company Form 4 washer with the bottom positioned agitator was well described by Herman W. D ughty, a mechanical engineer who was employed by the 1900 Company beginning in November, 1919, and joined with Mr. Davis in the development of the Form 4 machine (No. 661, I, 342) and in the application for the Doughty & Davis patent. Mr. Doughty described the water action of that machine as follows (Nos. 76-7, I, 439-41):

"The water would go out near the surface of the agitator to its periphery and then go upward along the walls of the tub to the top to the surface of the water, and then flow inwardly toward the center, down at the center to the center of the agitator and repeat that flow as long as the agitator was in motion. That is the general action whether the cleats are equally spaced or not. * * * Whenever the load is lighter, the clothes follow the course of the water which I have outlined much more readily. The heavy load has a dampening effect upon the circulation of water slowing it up to a degree depending upon the quantity of clothes present." (see to same effect No. 661, I, 341).

He further testified that he operated such a machine in his own home and elsewhere and that (Nos. 76-7, I, 451-2):

"With a tub of water only and the agitator in motion, the water would flow from a point at the center of the agitator along the surface of the agitator to the sides of the tub, and then upwardly to the surface of the

water, in towards the center and down again toward the center of the agitator in general. * * * Of course, the flow of water is not directly outward and directly upward on account of the oscillating motion of the agitator. It necessarily goes up somewhat in a spiral manner when it strikes the walls of the tub, because the agitator is moving all this time, and this motion starts and stops with a starting and stopping of the agitator, and of course the agitator reverses and, therefore, this flow is intermittent and the spiral action of the water is reversed with the reversal of the agitator. Now, when clothes are placed in the tub, the water action is not greatly changed from what I have described as long as very few clothes are used, but it is gradually dampened and slowed up so that its amplitude is very much less as the water begins to be more fully filled with clothes." (see also No. 661, I, 344).*

In a letter that Mr. Doughty wrote to Mr. Merrell Clark on March 23, 1921 (No. 661, III, 1725-9, Off. I, 338), long before there was any controversy about the mode of operation of the 1900 Company Form 4 machine, he described the operation of that machine to enable Mr. Clark to prepare the Doughty & Davis patent application, as follows (No. 661, III, 1727):

"When the water is placed in the tub and the agitator is started, the vanes upon its upper surface tend to set up a rotation in the mass of water, especially in that portion of the water immediately above the agitator. This rotating motion tends to throw the water toward the circumference of the tub by centrifugal action, thus drawing it out of the center at the bottom, raising it at the circumference and completing the

*The same phenomenon occurs in the Snyder machine. The greater the amount of clothes in the tub the slower the circulation. (Pltf. brief p. 44).

circulation by returning to the center downwardly along the upper surface. This action of the water continues as long as the agitator moves in one direction. When the motion of the agitator is reversed, the motion of the water is broken up, but is reestablished at once by the resumed motion of the agitator. There are certain other motions imparted to the water by the vanes of the agitator, which modify but do not prevent the circulation above described.

"When clothes to be washed are placed in the water the circulation of the water is retarded, but is still apparent in the gradual change in the position of the clothes while they are being acted upon."

The last sentence of the statement in the letter is fully confirmed by the contemporaneous document dated February 8, 1921 entitled "Test of Whirlpool Washer" (Deft. Exh. 38, No. 661, III, 1717, Off. I, 338). This document is a report of tests made by the engineers of the 1900 Company on the Doughty & Davis or Form 4 machine on February 8, 1921. The machine was tested with various loads, including a maximum load of white clothes of nine pounds and five ounces and a minimum load of colored clothes of one pound and fourteen ounces. It was noted that there was

"Some tendency with white clothes to stay in the center without much change in position. The above quantity of white clothes was about all that could be accommodated at one time and it is something to be determined whether or not half the quantity run half the time would not give better satisfaction. With a small quantity the agitation and change in position of clothes was much more rapid."

Comparing the water action of the Form 1, Form 2, and Form 3 machines with the water action in the Form 4 machines, Mr. Davis said (No. 661, I, 301):

"The water action in the Form 4 machine is similar to that in the earlier models, but reversed, in that the agitator is located adjacent to the bottom of the tub, so that the centrifugal action is outward from the centre in the lower portion of the water, to the tub sides, then up to the top, then in to the centre, then down to the agitator and out again" (see also No. 661, I, 314; Nos. 76-7, Davis I, 402).

Mr. Doughty was also asked to compare the action of the earlier upper positioned floating agitator Form 1 machines with the action of the Form 4 machine which superseded them. He testified (Nos. 76-7, I, 458-9):

"XQ267. As a matter of fact, what you did when you changed from the Form 1 machine to Form 4 machine was to turn the agitator bottom side up and leave off three or four of the rubbing elements? A. Generally, yes.

XQ268. Instead of having ten of the rubbing elements on there, you had six? A. Had six, yes.

XQ269. Unsymmetrically arranged? A. Yes.

XQ270. And except for the reversal of the movement of the water in the tub and the rubbing action, the two machines were substantially the same, were they not, in so far as carrying out the washing operations is concerned? A. Yes, I think so." (see also No. 661; Davis I, 325-6; Quinn I, 330; Doughty I, 341; Behan I, 365; III, 1725, Nos. 76-7; Behan I, 348; Quinn I, 429; Doughty I, 453-4).

There Was No Abandonment, but a Continuous Manufacture and Sale, by the 1900 Company, From 1917 to the Present Time, of Agitator Washing Machines Embodying the Same Principle of Construction and Operation.

That the single vane agitator machine of the Davis patent 1,748,442, and the high center post multivane agitator type machine manufactured by the 1900 Company at the present time under the Snyder license (see illustrations

on sheet opposite p. 44 of this brief) are nothing more than mechanically improved embodiments of the same principle of construction and operation disclosed in the early 1900 machines, appears from the testimony of Messrs. Quinn, Davis, and Doughty. Mr. Quinn testified that the difference between the earlier machines and the single vane agitator machine resided in getting a faster current of water (No. 661, I, 337). Mr. Davis, when asked to compare the water action of the Form 4 machines with the water action of the Model 400 high center post machine now manufactured by the 1900 Company which is substantially the same as defendants' accused machines (see sheet opposite p. 44), testified (No. 661, I, 325-6):

> "The water actions in the Model 400 and the Form 4 machines are similar in that they are thrown out centrifugally to the walls of the tub, then up along the tub sides and in at the top. In the case of the Model 400 the currents are then down around the centre of the agitator post, and in the case of the Form 4 they might be somewhat off centre or irregular in their action".

When Mr. Doughty was asked to make a similar comparison he said (Nos. 76-7, I, 453-4):

> "The action in this machine which I have just described, shown on Exhibit 12, and the action of machines of the type shown by Exhibit 4 the Whirlpool or Model 4 machine in character is *identical.* The Form 4 Whirlpool machine has a tub which is much larger than the tub of this Exhibit 12, and the speed of the agitator was slower so that the water action was less rapid than in the machine of Exhibit 12. *The paths were practically identical and the reversal of the agitator and consequent action upon the water was practically identical.*" (see also No. 661, I, 344, 355, 359).

Plaintiff's counsel assert that the Form 4 machine manufactured under the Doughty & Davis patent was "aban-

doned" by the 1900 Company after some 700 of them had been sold (brief p. 95) and it was so held by the Eighth Circuit Court of Appeals (No. 661, IV, 1895). If that were true, the manufacture and sale of the 700 machines would still stand as a prior manufacture and sale within the United States of these machines. The fact is, however, that the Form 4 machine was not "abandoned". It was *superseded* by improved embodiments of the same principle of construction and operation in the same way, for example, as the earlier Maytag machines were superseded by later improved Maytag models, as shown on the sheet opposite page 44 of this brief.

The Miller machines

The record contains conclusive evidence to show that William S. Miller of Meyersdale, Pa., manufactured and sold from the year 1916 at least through the year 1919 agitator or "gyrator" type washing machines, two examples of which are in evidence here as Defendants' Exhs. 21 and 22 (Off. Nos. 76-7, 488-9; illustrated in No. 661 at III, 1831, 1833, 1857, 1859). These machines are of the overhead floating agitator type (Nos. 76-7, I, 500). The agitator was electrically driven for rotary oscillation (Nos. 76-7, I, 495-6, 502, 514, 520-1). The machines were manufactured and sold at first with corrugated porcelain tubs in the year 1916 (Nos. 76-7, I, 488; No. 661, III, 1831) and afterwards, in the year 1919, with smooth-walled porcelain tubs (Nos. 76-7, Deft. Exh. 22, I, 489; No. 661, Deft. Exh. 19, III, 1833). Mr. Miller testified that in the operation of the machine, the vanes of the agitator "take hold of the clothes and create an action of both the clothes and water, produce a washing action... They agitate the clothes and the water" (Nos. 76-7, I, 492). Mr. John N. Lint, a mechanic employed by Mr. Miller, testified that the impeller

> "takes hold of the clothing and drags them through the water, setting up at the same time both an action of the clothing and the water, whereby the washing is

completed. The only rubbing action that takes place in the tub is the slip of the disc over the top of the clothing. It is not a rubbing action between the sides and bottom of the tub and the disc'' (Nos. 76-7, I, 500).*

The Miller machine was demonstrated by defendants' expert (No. 661, I, 203-9, 226, et seq.) and was observed to have the same characteristic movement of the wash water and the fabrics as in the Snyder machine with the overhead impeller.

The statement in the Snyder patent that the mode of operating the machine and the resulting manner of washing clothes in machines of this character, is indifferent to the position of the impeller, whether overhead or bottom-positioned, was entirely confirmed.

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*Elsewhere in this brief we have had occasion to comment upon the fact that Judge Otis in case No. 661, after writing his memorandum in which he adopted Judge Byers' opinion, approved without any modification the findings of fact that had been proposed by plaintiff's counsel. How far he was misled in so doing, is strikingly illustrated in his Finding 20 (No. 661, I, 32-3) where he found with reference to the Miller machines with the overhead impeller (Deft. Exhs. 21 and 22) that "The defendants' witnesses testified that the operation of these machines is disclosed in the Miller patent No. 738,560 of 1903," etc. The fact is that the Miller patent of 1903 instead of showing a machine of the agitator type like Exhibits 21 and 22 shows a typical machine of the rubboard type in which a sort of basket-like structure of scrubbing ribs is mounted for oscillation within the tub which has opposing ribs on its bottom and sides, so that "rubbing is effected by the action of the side and bottom ribs of the agitator in conjunction with the side and bottom ribs of the tub, . ." (No. 661, II, 729, 1/100-104). In plaintiff's proposed findings, adopted by Judge Otis, there were citations to the record, but there is no citation to support the assertion that defendants' witnesses testified that the operation of the 1916-1919 machines is disclosed in the 1903 patent. In cases Nos. 76-7 Mr. Miller testified: "This patent doesn't relate to machines of the type of Defendants' Exhibits 21 and 22" (Nos. 76-7, I, 494).

The Earlier Agitator or "Gyrator" Type Washing Machine Patents

A number of earlier patented agitator or "gyrator" type washing machines are illustrated on the next page with appropriate reference to the record. They are all characterized by the fact that the water and the clothes are agitated by an impeller mounted in the tub on a vertical axis, the washing being effected partly by water action and partly by rubbing of the clothes in their contacts with the impeller. Each of them has the essential elements (1) a tub, (2) an impeller, either bottom-positioned with upwardly projecting blades or inverted overhead with downwardly projecting blades, and (3) means for actuating the impeller.

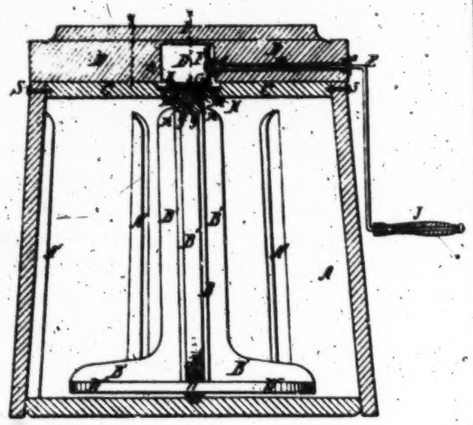
In some of the earlier agitator machines, the agitator was rotated continuously in one direction either by hand or by motor (see drawing of Hanna patent where a motor is conventionally illustrated at the left of the figure). The movement of the liquid in these machines is the same as that described by this Court in *Marchand* v. *Emken*, 132 U. S. 195. (footnote *ante* p. 10) That movement tends to build the liquid up on the side walls and slosh over, unless the speed of the impeller is carefully balanced with respect to the amount of material placed in the container (No. 661, I, 232). These machines therefore, were provided with vertical ribs or baffles arranged about the interior wall of the tub to break up the rotary movement of the water set up by the tub, thus permitting a higher degree of agitation or a higher rate of rotation without spilling over the sides (No. 661, I, 232-3).* The rotation of the bladed

*This function of the vertical ribs is stated in Covel's patent, second column, where it is said that the ribs affixed to the inner wall of the tub "arrest the circulatory current, and maintain a counter or reverse horizontal one" (No. 76-7, II, 863); and in the Hanna British patent of 1890 which speaks of the "contrary currents produced by the rotating blades (a') and the stationary projections (d) on the inside of the casing" (Nos. 76-7, II, 943, lines 9-10).

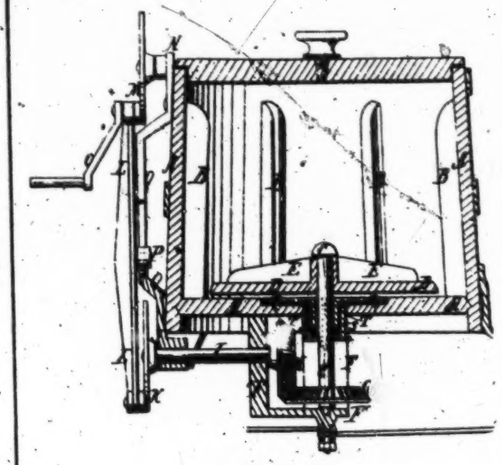
impellers is said, in the Covel patent, "to cause a violent agitation of the liquid, which effectually removes all impurities from the fabric subjected to its operation in a rapid manner, and with a slight expenditure of labor" (No. 76-7, II, 863, column 2). In the Runkel patent it is stated that "The circular plate Q [impeller base] is made *smaller* than the interior of the vessel A; and to its upper side are attached rounded projections, R, [upstanding blades], which act upon the water and clothes to throw them into *violent commotion.* To the inner surface of the sides of the vessel A are attached vertical ribs S, which operate, in connection with the projections R [blades] and rollers P, to throw the water and clothes into *violent* agitation and clean the clothes in a very short time" (Nos. 76-7, II, 873).

Jardine's British patent of 1891 (Nos. 76-7, II, 937, Off. I, 347) shows an agitator type machine in which the impeller is designed to be either rotated or reciprocated (rotary oscillation). The claims call for "circular washing machines with a revolving or reciprocating dolly" (No. 661, II, 1049, ls. 47-8, 52). The inner wall of the Jardine tub has current arresting blades similar to those of the Hanna patent except that they are cut away, up to a point considerably above the level of the impeller. The vertical ribs on the inner surface of the tub act to break up the rotary movement of the water when the impeller is rotated. When the agitator is oscillated, "caused to rotate in each direction alternately and reciprocally" (No. 661, II, 1047, line 31), instead of being revolved, the vertical ribs serve no function, and do not affect the washing operation (No. 661, I, 182, 197-8, 268).

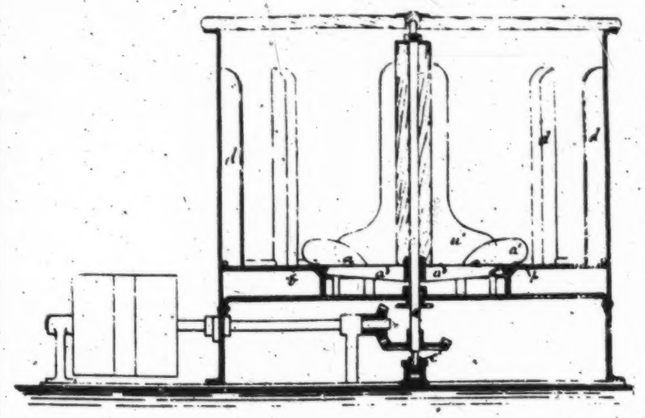
The Jardine patent recognizes that machines of the type described were old, and Jardine's improvement consists in means to guard the articles being washed from damage "by being caught between the rim or bottom of the machine and the dolly" (No. 661, II, 1047, ls. 27-8). *This serves to identify the Jardine machine as of the same type as*



Ferguson Patent of 1868
(No. 76-7, II, 857, Off. I, 346-7).



King Patent of 1869
(No. 661, III, 1626, Off. I, 278).



Hanna British Patent of 1889
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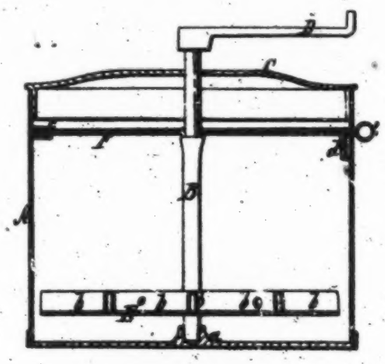

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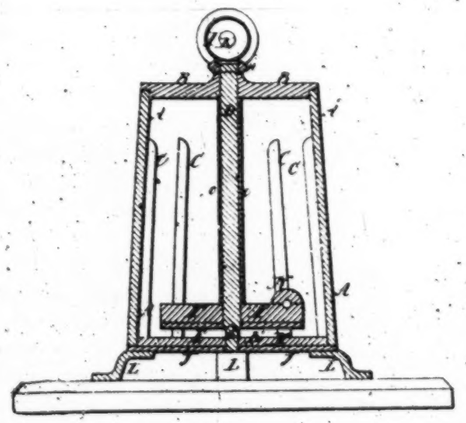

Covel Patent of 1869
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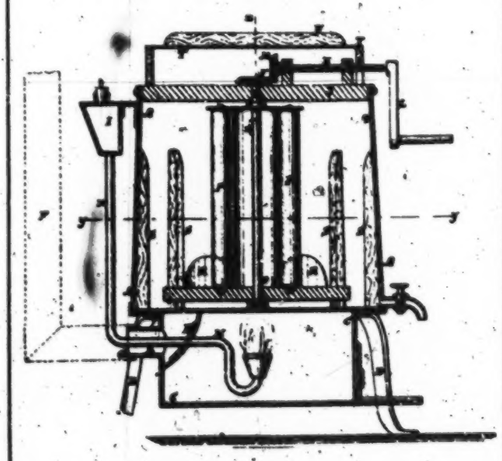

Runkle Patent of 1872
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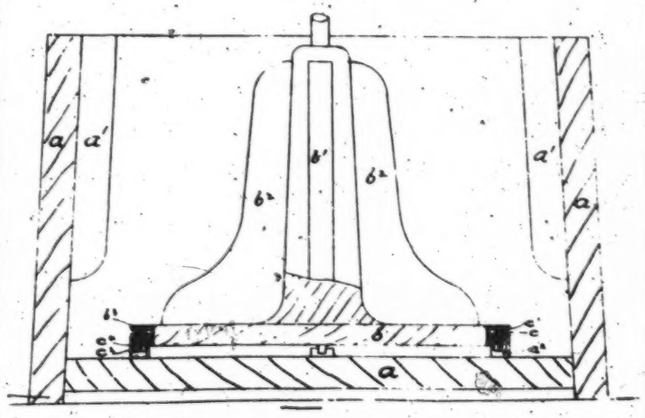

Jardine British Patent of 1891
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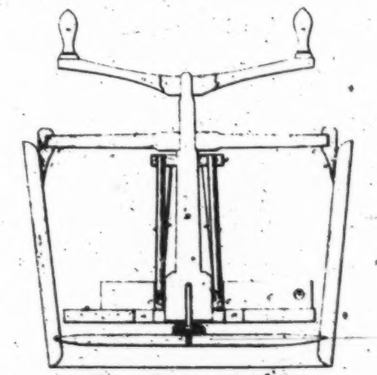
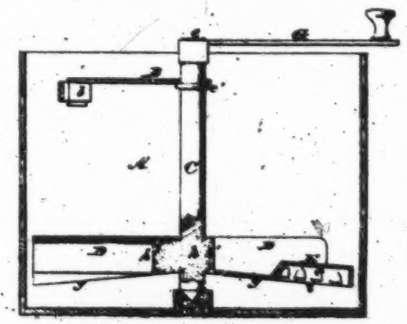


Morse Patent of 1870
(No. 76-7, II, 866, Off. I, 346-7).



Groat Patent of 1871
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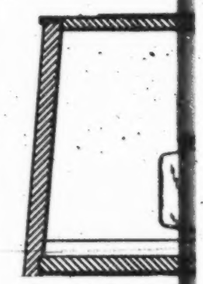

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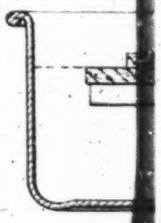

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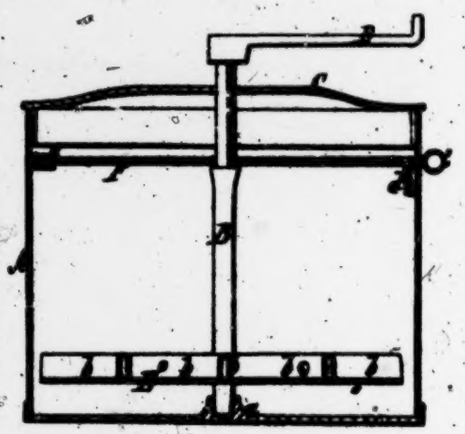

Hermance Patent of 1869
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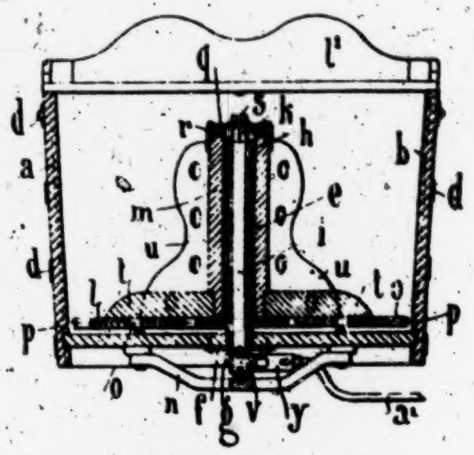

Lanin French Patent of 1906
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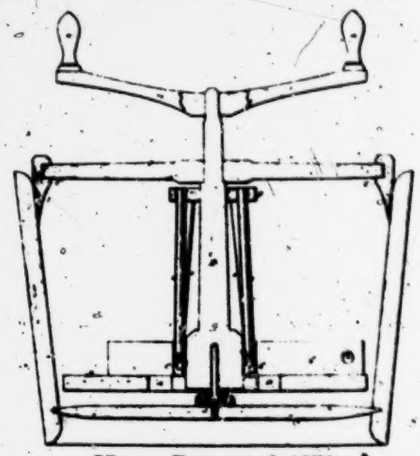
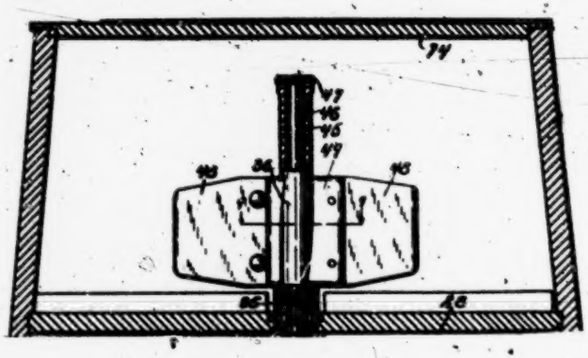
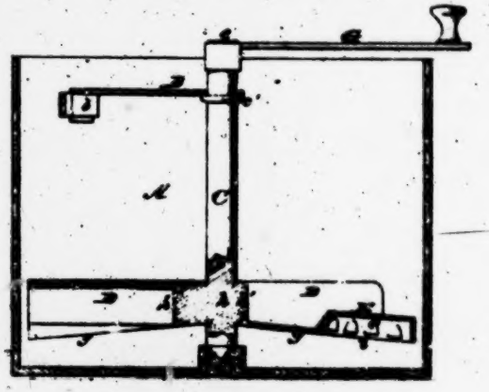


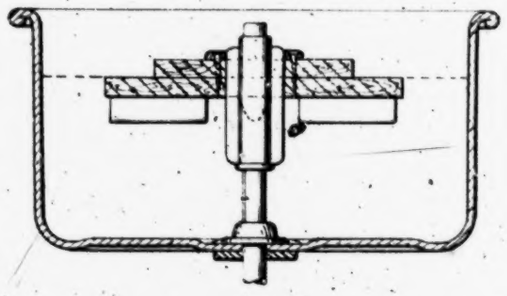
Morse Patent of 1870
(No. 76-7, II, 866, Off. I, 346-7).



Mills Patent of 1914
(No. 76-7, II, 892, Off. I, 346-7).



Gro[illegible] Patent of 1871



Miller Commercial Machine of 1919

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*he Snyder machine.** It is recognition of a difficulty that ccurs in machines of the bottom-positioned agitator type. The same difficulty was encountered by Snyder in the much ater development of plaintiff's washing machines. In the atter part of 1922, he modified the commercial Maytag nachines to overcome it (No. 661, I, 101, 136). He pat- nted his particular means for overcoming it in his patent ,506,783 of 1924 (No. 661, II, 949), described as an im- provement upon the machine of his application Serial No. 68,158 for the patent in suit (II, 951, lines 16-22), where he set the impeller in a depression or well in the bottom f the tub so that

> "the top surface of the gyrator and the top surface of the bottom of the tub will be even and form a substantially smooth continuous surface over which the materials to be washed may pass without catching upon the gyratator or the bottom of the tub and without causing any damage to the material; * * *." (No. 661, II, 951, ls. 16-22).

This Jardine patent fully meets claims 26 and 29. It iscloses a tub *a*, a substantially imperforate rotary re- iprocatory impeller *b* having blades b_2 of substantial eight and area projecting therefrom in a direction towards he fabric, and specifies that the impeller is to be "caused o rotate in each direction alternately and reciprocally" No. 661, II, 937), i e., to reciprocate or oscillate. It is articularly pertinent here because it shows the very type f high center post impeller used in defendants' machines.

Even prior to Jardine's patent, oscillating agitator or gyrator" washing machines for washing clothes by

*The Eighth Circuit Court of Appeals in case No. 661, at laintiff's suggestion, and on the basis of a wholly unwarranted ssertion drew an incorrect inference unfavorable to the defense rom this provision in the Jardine patent of means to prevent the lothes from being caught between the rim or bottom of the ma- hine and the impeller (see post pp. 80-81).

rotary oscillation, rather than by continuous rotation the impeller, had been developed. The *Hermance* pa of 1869 (No. 661, II, 1088, Off. I, 176; Taggart, I, 23 the *Morse* patent of 1870 (No. 661, II, 1060, Off. I, 176; T gart, I, 219-21; Deft. Exh. 24, Off. I, 219), and the *G* patent of 1871 (No. 661, II, 1092, Off. I, 176; Taggart, I, 8) illustrated on the attached sheet, disclose washing chines comprising a tub with a smooth interior, an impe mounted at the bottom of the tub with blades of subs tial height and area projecting in a direction towards fabrics, and means for reciprocating the impeller cons ing of a hand crank. The operation of the Herma machine is described in the second column of the pa where it is said:

> "The operator, by the use of the crank D, turns wheel E [the impeller] * * * *rapidly* from side side, causing a vibrating or reciprocating motion the wheel. This produces a tremendous agitation the suds as the shaft B carries not only the wh E, but also the water and clothes, with it" (Nos. II, 1089).

In the Groat patent, it is stated that when the impe is reciprocated "the ribs D will operate to rub and t the articles and agitate the water violently above wheel" (Nos. 661, II, 1095, bottom of second column).

It is our position that these patents fully anticipate combination of mechanical elements claimed in claims and 29 (also claim 23 unless that claim is limited, as think it is, to the dish-shaped disc impeller), and that Second Circuit Court of Appeals did not err when it fo (86 F. (2d) 625, 629):

> "The British patent to Jardine of 1891 also c prised these elements. A tub, a bladed agitator driving mechanism to impart motion to the agita They are also characterized by the absence of

board surfaces within the tub and by a vigorous agitation of water by the agitator. The only rubbing that occurs is between the clothes and the agitator. The current arresting blades on the wall of the tub are cut away up to a point sufficiently above the level of the impeller, and the inventor says that the agitator is caused to rotate in each direction alternately and reciprocally and the claims call for 'circular washing machines with a revolving or reciprocating dolly'. The vertical ribs or projections on the inner surface of the tub have no functions and do not affect the washing operation when the agitator is reciprocated instead of being revolved."

and that (same page):

"The machines disclosed by the prior art answer a description of claims 23 and 26 as to every necessary element and the relative proportions and arrangement of the parts."

We submit that defendants, having established by reference to these earlier agitator or "gyrator" type washing machines that the three-element combination of mechanical elements defined in these claims is old*, are not required to go any further to establish their right to manufacture, use and sell the accused machines. Certainly, from that point on plaintiff has a heavy burden to establish any monopolistic right in such manufacture, use and sale.

In its submission to overcome the effect of these earlier patents (at least so far as claims 26 and 29 are concerned), and to justify these apparatus claims, plaintiff stands upon

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*We put aside for the purpose of the argument at this point the fact that the Davis and Doughty & Davis patents disclose not only this combination of elements but also Snyder's method or mode of operating an agitator type machine, and that the 1900 Company machines and the Miller machines employed that method.

the functional statements which in the claims follow the recital of the three-element combination. For instance, in claim 26, it is stated that the tub and impeller are to be "so constructed and arranged as to cooperate while the impeller is in operation for whipping the fluid and violently forcing it" in the course of movement described in the patent "through and around the materials, and substantially suspending the materials in the fluid while being washed".

By resort to this functional statement plaintiff seeks to differentiate the claimed apparatus from the prior art in two ways. It seeks thereby (1) to introduce into the broad claims here relied upon certain structural features of the specific disclosure of the patent, and (2) to differentiate from the prior patents on the ground that they *contain no suggestion of* operating the machine "in such a way as to create • • • vigorous water action" (p. 98).

Our answers to these propositions are: (1) that structural features upon which novelty is predicated may not be introduced into a claim by way of a functional statement; (2) that, in any event, the claims are fully met by the prior structures because these structures are *capable of* setting up the prescribed currents when they are operated at an appropriate speed and, it is immaterial whether there is any disclosure in the prior patents of the way of operating their machines to get the effect disclosed in the Snyder patent, for this mode of operating the machine, *even if new,* would entitle plaintiff only to a method claim (the method which it did claim but is not now asserting), and (3) that, in any event, the method of the patent which consists in the idea of vigorously operating the impeller of an agitator type machine, does not rise to the dignity of invention.

1. The Functional Statements in Claims 26 and 29 Cannot Be Used to Distinguish the Structure Therein Set Forth From the Prior Art

It is our position that if the combination of elements defined in claims 26 and 29 is old, these claims are invalid. The functional statement in the apparatus claims of the end to be achieved cannot be used to interpolate into the claims a feature of novelty upon which the patentee depends to differentiate his structure from the prior art. If the patent discloses any novel structural features, these should have been directly incorporated into the claims. It is not permissible for a patentee to use "functional language at the exact point of novelty" *General Electric Co.* v. *Wabash Appliance Co.*, 304 U. S. 364, 371.

Actually, as we have seen (*ante*, pp. 19-21), the particular structural details of the Snyder machine are incorporated in other claims not here relied upon. Claims 26 and 29 purport to cover broadly, without reference to these details, the three fundamental elements of an agitator type machine modified only by the functional statement that the tub and impeller must be so constructed and arranged that when the impeller is operated the result described in the patent will be attained.

Furthermore, plaintiff's attempt to bring structural features into claims 26 and 29 by way of the functional ~~claims~~ is conducted upon a selective basis in which it proposes to bring in those structural features of the specific disclosure which it deems to be present in defendants' devices, while omitting others which are given equal emphasis in the specification but which are plainly absent from defendants' machines. For instance counsel say (br. p. 61) that the tub is to be smooth as shown in the drawing; that there must be a substantial space between the edge of the impeller and the walls of the tub, which space

they say is shown in the drawing (br. p. 62) and that the impeller must be mounted at the bottom of the tub (br. p. 63).

There is nothing whatever in the specification to indicate that these structural features are essential to the attainment of the result described in the patent, and their omission from claims 26 and 29 binds the patentee to the position that they are not essential. This conclusion is supported by the specification. The tub is stated to be "preferably" but not necessarily smooth. There is not a word in the patent about any spacing between the edge of the impeller and the outer wall and in the drawing the edge of the impeller is shown to be practically abutting the inclined bottom portion of the wall of the tub.

If any such spacing is essential to the attainment of Snyder's result, the specification totally fails to disclose it. Plaintiff says it is shown in the drawing, but the statutory demand that there be a "written description" (R. S. 4888; 35 U. S. C. 33) was re-affirmed by this Court in *Permutit Co.* v. *Graver Corp.*, 284 U. S. 52, 57-60, where an attempt to rely on an "unoccupied space", shown in the drawing but not described as a material part of the invention, was held to be improper. See also *Howard* v. *Detroit Stove Works*, 150 U. S. 164, 167. And as to the bottom-positioning of the impeller, the specification specifically says that the top-positioned impeller is the full equivalent of the bottom-positioned impeller, that it is one of the "desirable arrangements • • • within the contemplation of this invention" (3/32-41).

We submit that it would be highly improper to permit the patentee, on the basis of the functional statement, to rewrite his claim at will, to pick and choose from a variety of specific features which are given equal emphasis in the specification and which are not stated to be essential to the attainment of the result. This is particularly true where the patentee has incorporated the specific features in other claims not here in suit.

2. The Prior Machines Are Capable of Attaining the Stated Result

Furthermore, the terms of the claims are fully met (including the functional statement) by the prior patented machines which disclose the combination of the three elements set forth in the claims and which are certainly capable when the impeller is "rapidly reciprocated" of producing the result set forth in the functional statements in claims 26 and 29.

At the trial of case No. 661 defendants' expert demonstrated, in parallel with the Snyder machine, a model of the Jardine machine (No. 661, Deft. Exh. 16, III, 1845; Off. I, 179, 242. I, 178-84), with a glass-walled tub to permit observation of the movement of the liquid and the clothes (Off. I, 219). It was observed that in all cases when the Jardine machine is vigorously driven, the same kind of motion takes place as in the Snyder machine, namely, water, carrying with it the clothes, moving outward at the bottom, along the disc of the impeller to the wall of the tub, then upward along the side, inward at the top toward the center post and down (No. 661, I, 178-9, 182-3 and 192-6). Although plaintiff criticizes this test in certain minor details* it nowhere flatly takes the position that the Jardine machine will not create the same movement of the water and the clothes as the machine of the Snyder patent *when the impeller of the Jardine machine is rapidly reciprocated.* Indeed it would be embarrassing for plaintiff to take that position, for the fact is that all of defendants' machines use impellers which very closely resemble the impeller of Jardine's machine—much more closely than they resemble Snyder's impeller—so that it is not possible to differentiate them from the Jardine patent on the basis of any

*The impeller was driven from below the tub instead of from above and Jardine's particular means for preventing the clothes from being caught were not employed in the test.

substantial difference in structure or of the capabilities of that structure.

Similarly defendants' expert at the trial operated a machine embodying a disclosure of the Morse patent (No. 661, Deft. Exh. 24, Off. I, 219). The agitator was oscillated by hand (at about 30 oscillations per minute).* It was observed that the water currents described in the Snyder patent were set up and that when a three and one-half pound load of clothes was added to the machine, a similar movement was imparted to the clothes (No. 661, I, 219-21). He testified that when operated at 30 oscillations per minute by hand it will wash a four-pound load of clothes as effectively as the Maytag commercial machine or defendants' machine operated at the same rate of speed (No. 661, I, 223-4, f. 408).**

We submit that the Second Circuit Court of Appeals was correct when it found (86 F. (2d) 625, 629):

> "It is clear that, when the impellers of the prior art machines are rapidly reciprocated, the water action specified in the claim occurs."

The Eighth Circuit Court of Appeals rejected the Jardine patent as an anticipation, not on the ground of any difference between the structure of the Jardine patent and

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*Plaintiff remarks that operating machines of this character by hand is a comparatively laborious task, one which would not be relished by the ordinary housewife (Pltf. brief, p. 101). But it was not Snyder who substituted a power drive for a hand drive. (see Henin, No. 661, II, 1077 and Mills II, 1102, for examples).

**That a load of three and one-half or four pounds is not too small a load for testing the washing action of the machine is indicated by the fact that plaintiff's expert used even smaller loads, around two and one-half pounds, for testing the washing efficacy of the commercial machines relating to the Snyder patent (No. 661, I, 171-2, f. 313).

that specified in the claims, but on the ground that the Jardine patent "contained no suggestion of washing clothes while substantially suspending them in water by vigorous water action * * *" (100 F. (2d) 218, 224; No. 661, IV, 1896).

Plaintiff takes the same position in its brief. It does not deny, for example, that the Jardine patent discloses the combination of the three elements set forth in claims 26 and 29, but plaintiff says that "**There is nothing in it to indicate the operation of the machine in such a way as to create velocity of water flow or a vigorous water action**" (brief, p. 97) and that "**There is nothing which contemplates washing the clothes while they are substantially suspended in the water by the water action**" (p. 98, Emphasis theirs).

Thus in plaintiff's argument and in the opinion of the Eighth Circuit Court the validity of these *apparatus* claims is made to depend upon *the way in which the machine is operated.*

But even if Snyder had in fact discovered a new mode of operating these old agitator or "gyrator" type machines, the apparatus claims here in issue could not be sustained on that ground. To defeat these apparatus claims it is not necessary to establish that the prior patentees ever intended to operate their machines in that manner or that these machines were ever in fact so operated.

The discovery of a new mode of operating an old apparatus to produce a new result may constitute a patentable process which will support valid process claims. The novelty in such case lies in the new mode of operation and is unaffected by the fact that the apparatus itself is old. But in order to lay claim to a monopoly of the apparatus, the apparatus itself must be new. Where the apparatus remains unchanged in any way, no monopoly of the apparatus can be sustained. The process and apparatus claims in such cases are independent of each other, define separate and distinct inventions, and must stand or fall on their individual merits. If Snyder discovered a new mode of op-

erating these old machines, he was entitled to claims for a new method but he was not entitled to claim the old machine, either with or without an appended statement of function. A monopoly of an old machine cannot be based on the discovery of a new mode of operation. This principle has been clearly stated by this Court. In *Carnegie Steel Co.* v. *Cambria Iron Co.*, 185 U. S. 403, the Court said (p. 424):

> "a process patent can only be anticipated by a similar process. *A mechanical patent is anticipated by a prior device of like construction capable of performing the same function;* but it is otherwise with a process patent. The mere possession of an instrument or piece of mechanism contains no suggestion whatever of all the possible processes to which it may be adapted."

See also *Le Roy* v. *Tatham*, 14 How. 155, 176-7; *James* v. *Campbell*, 104 U. S. 356, 377 and *Saranac Mach. Co.* v. *Wirebounds Co.*, 282 U. S. 704, 714-5.

The principle has been repeatedly applied by the lower courts. For instance in the early case of *Boston Elastic, etc. Co.* v. *East Hampton, etc. Co.*, 3 Fed. Cas. 945, Case No. 1676, Circuit Judge Shepley said (p. 946):

> "He invented no new machine, but he operated an old machine in a different manner, and produced a new and different result. That he did not make a patentable invention we are not disposed to decide; but *the discovery of a new mode of operating an old machine to produce a new result does not give to him the right to a monopoly of the old machine.*"

See also to the same effect *Consolidated Bunging App. Co.* v. *Metropolitan Brewing Co.* (C. C. A. 2), 60 Fed. 93, 97-8; *Bryant Electric Co.* v. *Electric Protection Co.* (C. C., E. D. Pa.), 110 Fed. 215, 216; *Nestle-LeMur Co.* v. *Eugene* (C. C. A. 6), 55 F. (2d) 854, 856-8 and *Naivette* v. *Bishinger* (C. C. A. 6), 61 F. (2d) 433, 436.

3. *The Idea of Rapidly Agitating the Impeller to Increase in Degree the Vigor of Agitation of the Liquid Contents of the Tub, Does Not Rise to the Dignity of Invention*

We further submit that even in the method of the patent (which plaintiff correctly says is not in the case—br. p. 41—but which it persistently injects into its discussion of the apparatus claims), there is no contribution of an inventive character over these earlier patents such as Jardine. We think that it is plain from the disclosures of these early patents that circulation of the water and of the clothes occurred even in the hand operated machine. To increase the degree of vigor of the circulation beyond that which existed in these prior machines with a resulting change only in degree but not in kind, does not constitute a patentable invention. *Smith* v. *Nichols,* 21 Wall. 112, 118; *Commercial Mfg. Co.* v. *Fairbank Canning Co.,* 135 U. S. 176, 192; *International Tooth Crown Co.* v. *Gaylord,* 140 U. S. 55, 64; *Howard* v. *Detroit Stove Works,* 150 U. S. 164, 167; *Ansonia, etc. Co.* v. *Electrical Supply Co.,* 144 U. S. 11, 16-17.*

Throughout plaintiff's brief runs the suggestion that by increase of speed of oscillation of the impeller Snyder produced a new kind of result, not to be found in these earlier agitator type machine patents, and of which a hand-operated machine would be incapable. But these suggestions cannot carry any conviction, we submit, in view of the contrary position taken by plaintiff in connection with the wooden tub agitator machine alleged to have been made by Snyder in May of 1920. Plaintiff asserts that this

*The Eighth Circuit Court of Appeals did not question this principle (No. 661, IV, 1894) but it declined to apply it in this case because it was led to the erroneous conviction that these early agitator type machines were *rubboard* type machines whose operation would not have been improved by increased speed. (see post p. 71).

wooden tub machine "embodied the invention of the patent in suit" (brief, p. 86). The machine is described by plaintiff's witnesses as having consisted of a wooden tub in which the inside walls and the bottom were corrugated (No. 661, I, 440). The impeller is alleged to have been a flat metal disc with three low cleats or blades, said to have been about 1½ inches high and about 3½ inches long (Nos. 76-7, I, 579, Q499). Plaintiff's testimony is that this machine was first operated by hand and it was observed that the familiar currents of water described in the Snyder patent were set up in the tub and that when clothes were immersed in the water in the tub a similar motion was imparted to the clothes (Nos. 76-7, I, 653). The testimony sponsored by plaintiff is to the effect that at a later time the impeller was operated by a motor and it was observed that the same movement of the water was set up and a similar but more pronounced movement was imparted to the clothes. Plaintiff's witness admits that when the impeller was operated by motor, the motion of the water and the clothes differed only in degree from that imparted to the water and the clothes when the machine was operated by hand (Nos. 76-7, I, 654-5, XQs168-9). The presence of corrugations on the walls of the tub did not interfere with this motion, even with the low impeller blades.

Thus, it is plaintiff's own assertion that when the impellers of such machines are rigorously oscillated by hand the described movement is imparted to the liquid contents of the tub, and that more vigorous operation by means of a motor does not serve to change the character of the washing operation, but merely intensifies it. It certainly cannot be said that these prior patents failed to disclose the importance of vigor in the washing operation (*ante*, pp. 55-58).

Thus plaintiff's own evidence fully confirms the demonstrations by defendants' expert which showed that the same *kind* of movement of the liquid contents of the tub is obtained when the impeller is oscillated by hand (*ante*,

p. 64), as when it is more rapidly oscillated by a motor as in the power driven machines.

We submit that the Second Circuit Court of Appeals was correct when it said (86 F. (2d) 625, 629):

> "Mere speeding up to greater rapidity than the prior machines did not constitute inventive thought".

POINT III

Claim 23 is not infringed.

It is defendants' position that claim 23 is expressly limited to the dish-shaped disc impeller specifically described and illustrated in Snyder's patent and is not infringed by defendants' washing machines which use the flat base high center post type of impeller taken from the prior art. If not so limited, claim 23 does not differ from claims 26 and 29. in any substantial respect, and is invalid for the same reason that those claims are invalid.

The language used in the claim to describe the impeller refers to and defines the dish-shaped disc impeller illustrated in Figs. 1 and 4 of the drawings, as we have hereinbefore pointed out (*ante* pp. 22-24). That seems to us apparent from the express language of the claim itself read in the light of the specification, as it must be to find out how "each blade and its adjacent portion of the impeller base" coact to "drive the cleansing fluid in . . . an . . . outward upward circulatory direction." That the language was intended to define the dish-shaped impeller is confirmed, we submit, by comparing the language of claim 23 with the language of claims 26 and 29. The words "adjacent portion of the impeller base" in claim 23 stand in obviously intended contrast with the language of claims 26 and 29. In those claims the reference to this "adjacent portion of the impeller base" is omitted.

Defendants' machines (see illustration opposite page 44 of our brief), do not use a dish-shaped impeller adjacent

the blades. Their impeller base is flat. Defendants' machines therefore do not infringe this claim.

If our contentions in this regard are not accepted, then claim 23 does not differentiate in any significant way from claim 26, and it is anticipated. The claim differs from claim 26 in that the walls of the tub are said to be "free from rubbing projections"; the impeller is said to be "mounted in the tub adjacent its bottom"; the upper surface area of the base is said to be "considerably less than the horizontal cross-sectional area of the tub", and the margin of the base is said to be spaced "a substantial distance" away from the upwardly extending portion of the tub.

As to the last two requirements regarding spacing, we have already expressed fully our contention (*ante* p. 62). These references to spacing can have no substantial significance in a claim predicated on the Snyder specification, because there is not a word in the patent about any such spacing; because the drawing to which plaintiff refers does not in fact show any such spacing between the edge of the impeller and the bottom wall of the tub, and the statutory demand for a "written description" could not in any event be satisfied by a mere reference to the drawing (*ante* p. 62) and because no reference was made to any such spacing anywhere in the history of the patent application until claim 23 in its first form (claim 49), was inserted on January 28, 1932 (Nos. 76-7, III, 1221), approximately ten years after the application was filed and four or five years after defendants' Easy and Hurley machines were put on the market (see ante p. 24, and Nos. 76-7, I, 328-9).

All of the remaining elements of the claims are fulfilled in all respects including the requirements that the walls of the tub should be "free from rubbing projections" and that the impeller should be "mounted in the tub adjacent its bottom" by the Doughty & Davis patent and the Form 4 machine of the 1900 Company and by the Hermance, Morse, Groat and Mills patents (see sheet op-

posite p. 56 of brief). If the limitation to a bottom positioned agitator is disregarded, as it should be because that is the acknowledged equivalent of the inverted overhead agitator, then the requirements of the claim are fulfilled also by the Davis patent, by the Form 3 machine of the 1900 Company, and by the Miller 1919 machine with a smooth porcelain tub. In all of these machines there is some space between the impeller and the walls of the tub and certainly it cannot be said that this space is not substantial in the Jardine, Henin and Mills patents and in the Miller commercial machine of 1919 so that the claim is met even if effect is given to the indefinite limitations in the claim with regard to spacing.

We submit that the Second Circuit Court of Appeals was right when it said (86 F. (2d) 625, 629): "The machines disclosed by the prior art answer a description of claims 23 and 26 as to every necessary element and the relative proportions and arrangement of the parts".

POINT IV

Opinion of the Eighth Circuit Court of Appeals.

Fundamentally, the conflict between the two Circuit Courts of Appeals lies in the fact that the Eighth Circuit Court of Appeals accepted plaintiff's contention that Snyder's machine was the first machine of the "gyrator type"—that the Snyder machine "provides a decidedly new method of cleaning fabrics" which uniquely differentiates it from the prior art rubboard, peg dolly, etc. machines; whereas the Second Circuit Court accepted defendants' contention that the agitator or "gyrator" type of washing machine was old, and that both the method and the machine of the Snyder patent were anticipated by earlier machines of that type.

The Eighth Circuit Court of Appeals came to that conflicting conclusion by finding that each of these prior art

machines was a rubboard machine (see as to the Davis patent IV, 1892-4; as to the Davis & Doughty patent IV, 1895 and as to the Jardine patent IV, 1896).

It was led to that conclusion by plaintiff's representations, which are repeated in its brief here, and which are, we submit, unfounded.

1. With respect to the Davis patent, plaintiff asserts that:

> "The *claim* of the Davis patent specifically calls for the disk [rubboard] being 'freely movable vertically' (EH 920; GE 1058). *In this respect as in all other details of construction and operation the Davis machine was substantially identical with all rubboard* type machines." (Pltf. brief p. 25).

and that:

> "the machine of the Davis patent *did not and could not* operate to wash clothes in the manner described in it" (Pltf. brief p. 76).

To support the first of these propositions plaintiff in its brief presents the evidence in a way which is lacking in candor, to say the least. At page 23 of its brief, in the "Statement of the Case" plaintiff associates the drawing of the Davis patent and a photograph of an old Form 1 1900 Company machine, with a picture of the "Dietz Rubboard Power Washer" a prior art machine of the rubboard type. It prints below the picture of the 1900 Company Form 1 machine, the statement that

> "The *undisputed* testimony shows that these washers are of the old abandoned rubboard type. Each has a large rubboard which in operation slides down, compresses the clothes, and rubs and drags them against the corrugated interior of the tub".

Mere inspection of the illustrations will disclose that, unlike the Dietz washer, the interior of the tub of the Davis patent contains no corrugations against which a mass of clothes could be compressed and scrubbed, and the undisputed testimony is that the Form 3 1900 Company washer had ~~such a~~ smooth-walled tub (No. 661, I, 326).

A further, and more important, dissimilarity is completely hidden by plaintiff's presentation of the evidence. The agitator disk or impeller of the Davis patent is "designed to float upon the water contained within the tub" (No. 661, II, 1057; 1/23-4 and 100-1; 2/23-4); but the rubboard of the Dietz machine is deliberately mounted so that it cannot float but will be pressed down through the water in order to squeeze the clothes against the bottom of the tub.

We call attention to the Dietz circular forming plaintiff's Exhibit 44 (No. 661, II, 947, Off. I, 511) where the mounting of the rubboard is shown in the cut in the upper left-hand corner and where in the upper central portion of the text the circular emphasizes that the "DASHER • • • DOES NOT FLOAT". The reason it does not float is that it is pressed downwardly by a spring mounted on the drive shaft which can be seen in the circular, Exhibit 44, but *not in the cut in plaintiff's brief*. The construction is exactly like that of the rubboard machine disclosed in the patent to Cooper (No. 661, II, 928). The Cooper patent describes at the top of the second column (No. 661, II, 929) the rubboard

> "to which is also attached a spiral spring, *d*, which is placed around the shaft *c*, and against the collar *f*, on said shaft, *so that the board C will always be pressed down on the clothes*, but still have opportunity to accommodate itself to their movements on the cleats in the bottom of the box."

The facts are, therefore, that the Dietz dasher or rubboard, so far from being mounted in the same manner

as the Davis agitator, is provided with a compression spring so that the dasher *will not float* but will be pressed down through the water against the clothes; whereas the agitator of the Davis patent is, according to the instructions of the patentee, "to float upon the water contained within the tub" (Davis patent, No. 661, II, 1057, 1/22-3 & 100-1; 2/23-4).

Plaintiff's failure to refer to this signal difference of construction cannot be excused on the ground that the significance of the omission of the compression spring was unknown to it, for in the cross-examination of defendants' expert Taggart by plaintiff's counsel, it was expressly brought out (No. 661, I, 263) that the rubboard machines with the compression spring (like that shown in the Cooper patent) "differed materially" from the Davis machine "because this appears to have a spring on the drive shaft above the disc to press the disc down, while in the Davis machine it is prescribed at page 1, line 23, that the disk shall float upon the water" (see also page 264).

2. Plaintiff's second assertion, that "the machine of the Davis patent did not and could not operate to wash clothes in the manner described in it" is not, and of course it could not be, predicated upon the disclosure of the Davis patent itself.

Plaintiff's attempt to support the assertion is made on the basis of the alleged operation of the 1900 Company machines. It asserts that in those machines as actually constructed the impeller did not float, but sank to the bottom and compressed and rubbed the clothes against the bottom, thereby failing to perform the function assigned to it in the Davis patent "to direct the water outwardly by centrifugal force; thereby setting up a circulation downwardly within the tub adjacent the wall thereof, and thence upwardly through the fabrics in the tub and to the center of the space below the agitator" (1/15-21), and converting the 1900 Company machines into machines of the rubboard type.

We have already discussed the operation of the Form 1, 2 and 3 1900 Company machines made under the Davis patent, and the evidence which shows, we submit, that they operated in the way described in the Davis patent. (*ante* pp. 45-55) But even if that were not so, the operation of these 1900 Company machines brought forward as evidence of *prior manufacture, use and sale* could not overcome the effect of the Davis patent as an *anticipatory publication*. If the 1900 Company machines had been so constructed that, instead of floating, the impeller sank and became a rubboard, then those machines would not have been the machines of the Davis patent.

The evidence on which plaintiff relies to support its assertion that in the 1900 Company Forms 1, 2 and 3 machines, manufactured and sold from 1917 to 1921, the impeller sank and acted as a rubboard without setting up the circulation disclosed in the Davis patent, is discussed in an addendum at the end of the brief (*post* pp. 84-95).

3. Plaintiff in its brief (p. 70) says that:

> "The statements contained in the Davis patent indicate plainly that the disk (rubboard) was to be operated slowly and was designed to create only a slow circulation of water, for in it he says that he provides 'means in connection with the agitator disk to **prevent churning of the washing fluid,**' (Pat., p. 1, lines 29-31) and to **eliminate 'eddies and other current irregularities** preventive of a high degree of efficiency' (p. 1, lines 84-86)." (Emphasis theirs).

The Eighth Circuit Court of Appeals accepted this suggested deduction, prejudicial to defendants, that the impeller in the Davis patent was "designed to create only a slow circulation of water," and found that the difference between the Davis machine and the Snyder machine

> "is emphasized by the statement in the Davis patent that the object of the invention is to provide means

in connection with the agitator disc 'to prevent churning of the wash fluid'. This would indicate a slow movement of the water" (p. 1892).

This deduction has a superficial appearance of reasonableness, but it is in fact profoundly unsound. The deduction to be made from this language in the Davis patent is precisely to the contrary. Because these machines (Snyder's machine and also the Davis machine) depend for the washing operation upon a "vigorously agitated and rigorously moved" body of cleansing fluid (Snyder patent 1/94-5) it is important that the intended lines of flow should be maintained, and not confused by eddies and other current irregularities. The means in the Davis patent to "prevent churning of the washing fluid" and to eliminate "other current irregularities" consists of the "peculiar arrangement of ribs 4 and 6" by which "the fluid is caused to flow in lines similar in shape to an elongated loop depressed intermediate its extremities. The *constancy of such flow lines* eliminates eddies and other current irregularities preventive of a high degree of efficiency" (Davis patent 1/79-86); and "the centrifugal action of the agitator is *materially increased* by this particular arrangement" (2/17-20).

Instead of differentiating the Davis patent from the Snyder patent, this purposeful control of the flow lines of the cleansing fluid, rightly understood, emphasizes their identity in principle and mode of operation.* That the prevention of directionless churning is an important item in creating such a movement was asserted by Snyder, as well as by Davis. In the prosecution of his patent application Snyder said:

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*The difference between directionless movements or "churning", which both Davis and Snyder sought to avoid, and the directed circulatory flow in defined paths which both sought to achieve, is made clear by the testimony (No. 661, I, 262).

"The action of the gyratator must be a smooth action, such that it will *not be irregular* or have the tendency of causing the gyratory movement of the contents of the tub to move in *non-uniform movements.*" (No. 661, Filewrapper, III, 1261).

4. In further attack on the disclosure of the Davis patent plaintiff emphasizes the statement of defendant's expert Professor Taggart to the effect that in the Davis machine the clothes were pulled by the agitator and were washed by rubbing, pounding, squeezing and dragging them; relying on this testimony to distinguish between the operation of Davis and Snyder (Pltf. Brief, pp. 25, 71-8). This suggestion was also accepted by the Eighth Circuit Court of Appeals, to defendants' prejudice (No. 661, IV, 1892-3); but here again the true significance of the evidence is the reverse of that urged by plaintiff and accepted by the court.

Professor Taggart's testimony was that in all of the agitator type machines, *including Snyder's,* there is rubbing, pounding, squeezing and dragging of the fabrics by the blades of the reciprocating agitator as the fabrics follow the circulatory path of the wash water into the agitator zone (No. 661, I, 253-4, 256, and see opinion of the Second Circuit Court of Appeals quoted *ante* pp. 14-5). Far from being a distinction, Professor Taggart made it clear that this action was a point of similarity.

"Q. Mr. Lane asked you as to the prior art machines, which you demonstrated here, the Doughty and Davis and the Jardine, whether they did not operate by rubbing and pounding and squeezing and dragging the clothes through the water. He refrained from asking you the same question about the machine of the Snyder patent and I would like to ask you the same thing about the machine of the Snyder patent?

A. It acts in the same way so far as my observation is concerned as the others; that is to say by rubbing

and scrubbing, pounding, in so far as when the blade hits the mass it pounds, and dragging with the accompanying deformation of the fabric as it is pulled through the water just exactly the same way as in the other machine." (No. 661, I, 276).

5. The final argument urged by plaintiff's counsel against acceptance of the Davis patent 1,240,826 as an anticipation is that it was rejected by the Patent Office for substantially the same reasons urged in plaintiff's brief (Pltf. brief, p. 82). Examination of the file wrapper of the Snyder patent (No. 661, Deft. Exh. 35, III, 1193 et seq.) will show, however, that the claims of the Snyder patent were allowed over the Davis patent because the examiner accepted the statement of Snyder's solicitor that Davis did not show *an agitator having blades of the "tapering, projecting" shape* asserted to be necessary for the production of the water movement described.* This contention, which could not have withstood critical and informed examination, has been abandoned by plaintiff in these suits against defendants who do not use blades of such "tapering, projecting" shape. The uninformed acceptance by the patent office examiner of this assertion (now abandoned by plaintiff) will have no tendency, we think, to lead this Court now to take into account the *prima facie* evidence of the action of the patent office.

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*Snyder's solicitors said of the Davis patent (No. 661, III, 1327):

"This construction will not cause the flow of the liquid as described in this claim, Davis' allegation in his patent to the contrary, notwithstanding. The tapering, projecting feature of the blade is necessary to the projection of the liquid in the tub as described by this claim, and inasmuch as the patent of Davis signally fails to disclose such tapering arrangement of blades, the patent in no wise anticipates the substance of this claim, and hence is not a valid reference therefor."

6. In connection with the Doughty & Davis patent, the Eighth Circuit Court of Appeals was again led by plaintiff's argument to attribute an erroneous significance, prejudicial to defendants, to certain features of mechanical improvement in this agitator or "gyrator" type machine.

It was represented to the court by plaintiff that the unsymmetrical arrangement of the agitator blades in the Doughty & Davis patent negatived the existence in that machine of a vigorous flow or action of the water and the substantial suspension of the clothes in the water while the washing operations were going on (Pltf. brief pp. 94-5). This suggestion was accepted by the Eighth Circuit Court of Appeals and incorporated in its opinion at page 1895, where the court refers to this unsymmetrical arrangement of the vanes as having the effect to *lessen* the movement of water in the machine.

This interpretation of the purpose and effect of the unsymmetrically arranged vanes could not be further from the truth. The truth is that the purpose of this unsymmetrical arrangement is to *increase* the movement of the clothes by overcoming a defect inherent in bottom-positioned disc-like impellers with upwardly extending blades (as distinguished from overhead impellers on the one hand and from high center post bottom-positioned impellers on the other hand), which difficulty was encountered not only by Doughty & Davis with their bottom-positioned impeller, but also by Snyder (several years later) with his dish-shaped disc impeller of the patent in suit. The observance of the difficulty, and the provision of means to overcome it, constitute, as we have already said (ante pp. 42-3) evidence of *like mode of operation* of the Snyder machine and the Doughty & Davis machine.

In their patent Doughty & Davis say (No. 661, II, 1044, lines 11 et seq.) that the purpose of the unsymmetrical arrangement of the vanes is to overcome "a marked tendency for a single one of the many pieces of laundry in the tub to cling to the agitator" which tendency "is appar-

ently due to the fact that the oscillation of the agitator sets up currents in the fluid contents of the tub which move centrifugally of the agitator" and if the agitator is symmetrical these currents tend to stretch "the most available piece of laundry over the surface of the agitator and keep it there". As Mr. Davis explained at the trial, under questioning by plaintiff's counsel, this arrangement "was to do a better job of circulating the clothes" (Nos. 76-7, I, 402) "to prevent the clothes from remaining in more or less intimate contact with the upper surface of the agitating disc" (I, 403). Mr. Doughty testified to the same effect (I, 439-40; 451).

From the evidence of Snyder's own patent 1,729,751 applied for March 20, 1925 it appears that he encountered the same difficulty with his dish-shaped disc impeller of the patent in suit and had to adopt appropriate means to overcome it. In that patent (Nos. 76-7, II, 1069, Off. I, 347) Snyder says that his object is to improve the agitator of the patent here in suit by "providing the substantially disk-like agitator therein shown with a central cylindrical stem . . ." (1/9-11); that "By means of this construction any tendency of the fabrics to accumulate at the central portion of the agitator above the upstanding blades thereof is entirely eliminated" (1/16-19), and "Without this upstanding stem 24 these fabrics might possibly accumulate at the central portion of the agitator and tend to accumulate in a knot or tangle at this point" (2/98-102).

7. With respect to the Jardine patent, the Eighth Circuit Court of Appeals was likewise misled, by unsound deductions from the presence of details of mechanical improvement, to classify that patent as "a rubbing and scrubbing machine".

We have already pointed out (*ante* pp. 56-7) that the provision in the Jardine machine of means to guard the articles being washed from damage by being caught between the bottom of the machine and the agitator, serves to

identify the Jardine machine as of *the same type as the Snyder machine.*

Accepting plaintiff's suggestions, the Eighth Circuit Court of Appeals gave this mechanical detail exactly the contrary significance.

Plaintiff represented to the Eighth Circuit Court of Appeals, as it represents here (brief p. 107), that

> "If the Jardine patent had been designed to be operated in the manner disclosed and claimed by Snyder there *would be no occasion* for the ring or rim upon which the patent is predicated, for it is *not required or used* in plaintiff's and defendants' machines which utilize the Snyder invention . . . In it [sic.] *nothing is required* to prevent the clothes getting beneath the impeller."

But as we have pointed out (*ante* p. 57) this very difficulty of the clothes catching under the impeller *was encountered* by Snyder in the operation of the machine shown in his patent, and to overcome it Snyder had to devise an improvement to prevent this catching of the clothes. This improvement is disclosed and patented in his patent 1,506,783 of 1924 (No. 661, II, 949) and is embodied in every form of the Maytag Company's machines shown on the sheet opposite page 44 of this brief, excepting the first form which is the form of the patent in suit. The means devised for this purpose was the "agitator well" which was provided so that the top surface of the gyrator and the top surface of the tub bottom would be smoothly continuous so as to prevent the clothes from "catching upon the gyrator or the bottom of the tub". (No. 661, II, 951, lines 16-22)

We think this inadequacy of examination by the Eighth Circuit Court of Appeals could not possibly be more clearly displayed than it is by the fact that the court followed plaintiff's suggestions to the extent of finding that the Doughty & Davis machine and the 1900 Company Form 4

machine made under that patent are rubboard machines (No. 661, IV, 1895). We have already fully discussed the evidence which shows beyond any possibility of doubt (even by contemporaneous description written before this controversy arose by Mr. Doughty himself) that the Davis & Doughty bottom-positioned impeller machine operated exactly like the Snyder machine (*ante*, pp. 48-51 and *post*, pp. 94-5).

Thus we find, on a careful examination of the facts, that Mr. Davis in his patent of 1917 provided means to overcome a tendency toward undirected flow of the water currents in his machine; that Doughty & Davis in 1921 provided means to overcome the tendency of the moving fabrics to stick to the impeller and that Jardine in 1891 provided means to prevent the clothes from catching between the agitator and the bottom of the machine. We find that all three of these desirable features were recognized and provided for by Snyder in his machines devised successively several years later than the Jardine, Davis and Doughty & Davis machines. *The sound conclusion is that the Jardine machine, the Davis machine, the Doughty & Davis machine and the Snyder machine were all of the same type. Plaintiff has advanced, and the Eighth Circuit Court of Appeals has erroneously accepted, the suggestion that these structural improvements have precisely the opposite significance.* We think it must be concluded that the examination by the Eighth Circuit Court of Appeals of these matters of a mechanical nature was inadequate.

8. In addition to these errors of fact and of reasoning contained in the decision of the Eighth Circuit Court of Appeals, there is a vital error of law in its consideration of the prior art. The Court of Appeals sustained plaintiff's apparatus claims, not on the basis of any significant difference between the structure therein claimed and that disclosed in the prior art, but on the ground that those prior patents contained no suggestion of washing clothes in the manner described by Snyder. The Eighth Circuit Court of

Appeals rejected the Jardine patent because "It contained no suggestion of washing clothes while substantially suspending them in water by vigorous water action" (100 F. (2d) 218, 224; No. 661, IV, 1896). Thus the Court of Appeals sustained the three apparatus claims in suit, not on the ground of any novelty in the apparatus, but on the ground of the supposed novelty of the manner of operating the apparatus. This is contrary to controlling precedent (*ante*, p. 66).

CONCLUSION

We submit, therefore, that on the facts and the law, the decision of the Second Circuit Court of Appeals holding apparatus claims 23, 26 and 29 invalid is correct, and should be affirmed by this Court and the decision of the Eighth Circuit Court of Appeals should be reversed. In addition relief should be denied to plaintiff because of its failure to promptly disclaim or to attempt to vindicate method claim 39. We also submit that claim 23 is not infringed by defendants' machines.

Respectfully submitted,

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ADDENDUM

The following sections relating to the operation of the 1900 Company commercial washers and to the carrying back of Snyder's alleged date of invention have been segregated from the main body of the brief because in defendant's opinion a decision of the questions involved is unnecessary to a decision of this case. However, since plaintiff has laid so much emphasis on these points in its brief we have included the following discussion of the evidence for the court's convenient reference.

Plaintiff's Attack on the 1900 Company Machines

The 1900 Form 1, 2 and 3 Machines

Plaintiff does not seriously deny that the overhead agitator machines Forms 1, 2 and 3 manufactured, used and sold by the 1900 Company between 1917 and 1921, have the combination of a tub, impeller and power means for reciprocating the impeller claimed in the patent in suit; nor does it deny that these elements are so constructed and arranged as to cooperate to set up Snyder's circulatory movement of the water and clothes when the impeller is reciprocated *so long as the impeller continues to float at the surface of the water.* It is plaintiff's contention, however, that in the 1900 machines

> "The slidable mounting of the rubboard was such that when clothes and water were placed in the tub and the rubboard put in operation it slid down into contact with the clothes and compressed them between the bottom and sides of the tub, and rubbed the mass thus compressed and dragged it against the corrugated interior of the tub." (Pltf.s brief, p. 70).

But this contention, even if accepted, could not alter the anticipating effect of the Davis patent 1,240,826. If it were

the fact, as plaintiff contends, that the design of the agitator mounting in the 1900 commercial machines was so faulty that the agitator sank when in operation, this would merely establish that these washers are not representative of the machine of the Davis patent which provides for an agitator "designed to float upon the water contained within the tub." (No. 661, II, 1057; 1/23-4 and 100-1; 2/23-4). It certainly does not constitute proof that a mechanic could not carry out the directions of the patent and design a slidable agitator which would continue to float on the water when in operation.

Apart from that, however, it is submitted that plaintiff has wholly failed to sustain its contention. Examination of the testimony will show that the most it can be said to prove is that in the operation of the Forms 1, 2 and 3 machines the impeller had some tendency to rise and fall as the water and clothes rose and fell in response to the turbulence of the water and that in cases where the impeller had become warped or water-logged it would sink and restrain the free movement of the clothes, the extent to which this restraint would occur being governed in part by the amount of clothes in the tub.

We have already referred to the testimony of Mr. George L. Davis of the 1900 Company regarding the operation of the Forms 1, 2 and 3 machines (*ante*, pp. 47-8). Without repeating it here, it is sufficient to point out that it is in direct contradiction to plaintiff's allegation (see also No. 661, Davis, I, 313-14).

Plaintiff relies on the testimony in case No. 661 of Mr. Behan of the 1900 Company who said in reference to the circulation in the Form 1 machine:

> "Why, when the tub was filled as per manufacturer's specifications, we expected there would be water above the surface of the clothes, and as the agitator or scrub-board was lowered and the motor turned on, the agitator threw the water out to the sides of the tub and then it went down through and up again. That

allowed the agitator to lower itself. As the water came up part of it climbed on top or got on top of the agitator and helped to submerge it into the clothes, and in its washing action there was a relatively small amount of water motion and considerable rubbing." (No. 661, I, 368).

If this testimony by Mr. Behan is taken to be in contradiction of the testimony he gave in cases Nos. 76-7 (see *ante* p. 46) then his testimony would be discredited. We do not think it is to be so taken. We think it must be taken as the description of an unusual condition when the agitator was not properly floating, because it was water-logged or otherwise defective. That interpretation is, it seems to us, supported by Mr. Behan's testimony in the earlier trial in cases Nos. 76-7 where he said:

"Q20. What determined the vertical position of the agitator during operation of the machine? A. It was designed so that it could float up and down on the stem or guide post which was held in a bearing in the cover.

Q21. What do you mean float up and down? On what? A. On anything which resisted it, either the water or the water and clothes.

Q22. What determined the position of the agitator, the clothes or the water? A. Both—if there were no clothes, then water. If there were clothes, then clothes and water." (Nos, 76-7, I, 350).

"Referring to Form 1, Defendant's Exhibit 2, the agitator is free to assume any position that the resistance below it will allow it to assume, it being loose on the shaft. *Assuming you have a normal load of water and a normal load of clothes in the tub, the agitator rides on the clothes and the water.* The position of the agitator varies as the water and clothes rise and fall. *As the turbulency of the clothes, turning over, as that rises and falls, the agitator rises and falls with it with relation to the bottom of the tub*

or the clothes or water. The oscillation of the agitator carrying the vanes underneath causes the turbulence of the water." (Nos. 76-7, I, 383).

Mr. Behan also stated that when the agitator followed the downward movement of the water and clothes it would "engage the clothes and rub them and press them against the side of the tub* as well as on the agitator itself" (No. 661, I, 368). It is difficult to reconcile Mr. Behan's assertion in case No. 661 that there was a "relatively small amount of water motion" with his earlier testimony as to the "turbulence of the water" and the "turbulency of the clothes, turning over". In any event, his entire testimony makes it clear that there was no permanent sinking of the agitator such as to compress the clothes between the agitator and the bottom of the tub and smother the water currents, as plaintiff asserts.

Plaintiff also relies on the testimony of Mr. Doughty in case No. 661. We have already pointed out (*ante*, pp. 48-51) that in the earlier cases Nos. 76-7, Mr. Doughty described the circulation of the water and clothes in the Form 4 machine and testified that except for the reversal of the circulation and rubbing action the washing operation of the Form 1 machine was the same. In those cases Mr. Doughty also testified that in the Form 1 machines "The agitator was of wood *and rested on the top of the water enclosed when it was in action*" (Nos. 76-7, I, 432), and when questioned as to the function of the corrugations in the bottom of the sheet metal tubs (manufactured for the Form 3 machines), one of which was used in the original Form 4 machine (Nos. 76-7, I, 436), he said:

"I would say the effect of these shallow corrugations in the bottom of the tub was purely psychological.

*There could have been little rubbing action "against the side of the tub" in the Form 3 machines since they were equipped with smooth sided tubs as disclosed in the Davis and Snyder patents (Nos. 76-7, I, 392).

> People sometimes thought the ribs were necessary and the ribs were sometimes put in to meet that opinion. I don't know that they serve any purpose unless it might be to stiffen the bottom of the tub. I would expect that they would have a slight beneficial effect to stiffen the bottom." (Nos. 76-7, I, 464).

As to the rubbing action that occurred in the Form 4 and Form 1 machines, he stated that this rubbing contact occurred in all the machines, including the latest high center post washers (Exh. 12) manufactured under the Snyder license (Nos. 76-7, I, 462, 454-56). In other words, his testimony was to the same effect as Professor Taggart's testimony that in all machines of the agitator type rubbing contact occurs as found by the Second Circuit Court of Appeals (see *ante* pp. 77, 14-5).

Plaintiff does not refer to the foregoing testimony of Mr. Doughty but relies entirely upon certain testimony given by Mr. Doughty in the subsequently tried case No. 661. In that case, Mr. Doughty, when asked about the operation of the Form 1 machine, testified (No. 661, I, 347) that "when the machine was started the agitator would oscillate back and forth on top of the clothes * * * it would go down until it contacted the clothes—the resistance of the clothes counteracted its tendency to go down—varying distances, depending upon the loading of the machine". Then, he was asked by plaintiff's counsel and answered the following questions (No. 661, I, 347):

> "XQ131. So as the rub-board moved down it would contact and compress the clothes between the rub-board and the bottom and sides of the tub? A. Yes.
>
> XQ132. And in that way got the rubbing action on the clothes both top and bottom and sides? A. Yes."

When asked how far the agitator would go down "if you had only a very few clothes in the tub" he said: "I am not sure how far it would go down" (No. 661, I, 349).

He also testified that there was "very poor circulation of clothes, practically none, when the machine was ordinarily loaded" (No. 661, I, 350). Asked whether the description in the Davis patent represents the water action as it took place in the Form 1, Form 2 and Form 3 machines, he said (No. 661, I, 360):

> "I do not believe that the machine in actual practice would create those currents except when the agitator was held up from descending, or I might say it might create those currents at the instant that the agitator, or while the agitator was at the surface of the water, but the moment it settled down into the clothes I think those currents would disappear."

Asked whether the agitator would float or sink when the tub of a Form 1 machine was filled with water and the machine was stationary, Mr. Doughty said (No. 661, I, 360):

> "It would float, I would say, when the machine is new. When a machine was old and the agitator water-soaked, it would go down even without any effort to force it down."

It will be observed that the substance of Mr. Doughty's testimony is not that the Form 1, Form 2 and Form 3 machines were incapable in actual practice of creating and maintaining the water action described in the Davis patent, but that there was a tendency in the actual operation of those machines for the agitator to go down into the water to some extent until it came into contact with the clothes, and that under some conditions (certain proportions of load and water) the circulation of the clothes would be "very poor" or "would disappear".

We think that the apparent contradictions in Mr. Doughty's testimony can be reconciled in the light of a letter written by him to Mr. Clark under date of March 23, 1921. This letter (No. 661, III, 1825) fully explains the

circulation set up in the Form 4 machine and points out that a special advantage of the submerged agitator of the Form 4 machine is that it avoids a certain restraint put upon the movement of the clothes at the top by the overhead agitators used in the Form 1, Form 2 and Form 3 machines which had the effect of "restraining their free movement and increasing the power required to operate the washer", and that the submerged agitator avoids the action which occurs in the overhead agitator machines which "causes the agitator to sink in the water and restrict the free movement of the clothes". As stated by Mr. Doughty in this letter (No. 661, III, 1727):

> "The reason for this objectionable action is this: the vanes on the agitator when in motion cause the water to flow from the center toward the side of the tub. Consequently, the center is lowered and the agitator, which is only held in position by floating upon the water, or by the supporting effect of the clothes, is drawn down with the result of compressing the clothes, restraining their free movement and increasing the power required to operate the washer."

This statement of the actual operation of the Form 1, Form 2 and Form 3 machines does not support plaintiff's contention that the agitator of those machines permanently settles down into the clothes to such an extent that the circulation of water and clothes disappears. It is obvious that while the free movement of the clothes is to some extent restrained by the drawing down of the agitator, the circulation is not destroyed. If the circulation were destroyed, the agitator, which is drawn down *because* of the circulation of the water and the consequent lowering of the water level at the center, would return to its normal position. That this was the fact is borne out by Mr. Behan's testimony already quoted (*ante*, pp. 86-7) that the agitator had a tendency to rise and fall in response to the turbulent movement of the water. The letter to Mr. Clark

shows that in the operation of the Form 1, Form 2 and Form 3 machines, the prescribed circulation was in fact set up and maintained, but that Davis and Doughty, who had observed that the circulation of the clothes was to some extent impeded by the vortex action described in the letter, designed the Form 4 machine so as to eliminate that tendency.

In addition to the testimony of the 1900 Company employees, plaintiff relies upon two demonstrations conducted by plaintiff's expert, Professor Kenerson, to support its contention that the circulation of water and clothes in the 1900 Forms 1, 2 and 3 machines was smothered by the descent of the agitator and that washing was performed by rubbing the clothes against the tub bottom. Professor Kenerson's testimony as to these demonstrations appears at pages 521-5 of the record in case No. 661. Two machines were involved in these demonstrations. Professor Kenerson testified that they were substantially identical with the 2A machine offered in evidence by defendant.* How they came into his possession, and whether they were machines made by the 1900 Company, by the plaintiff, or machines of his own construction, does not appear. He operated one of the machines (No. 661, Pltf. Exh. 47) with only water in it, and the other (No. 661, Pltf. Exh. 48) he operated with a load of clothes. The agitator of the machine with only water in it moved from its upper limit of movement to its extreme lower limit of movement, about an inch above the bottom of the tub, in less than one minute (No. 661, I, 522). The agitator of the machine loaded with clothes went down to within one inch of its lower limit of movement and compressed the clothes between it and the bottom of the tub in less than two minutes and continued to operate in this condition (No. 661, I, 524). It was, however, brought out on cross-examination that the

*The 2A machine is the Form 1 machine manufactured and sold by the 1900 Company, Defendants' Exhibit 27, Case No. 661.

agitators were warped and that the two plies of wood, arranged at right angles to each other, had swollen unevenly so that each had an elliptical shape extending, on its major diameter, beyond the edge of the other ply (No. 661, I, 538-9) and that the disc was "fairly well water-soaked" (No. 661, I, 540). Although Professor Kenerson said that he did not think that the sinking of the agitator was due to the warping of those discs, yet he said that he had never tried an unwarped disc on these machines (No. 661, I, 541). Professor Taggart expressed the opinion—and gave his reasons—that the sinking of the agitator in the two demonstrations made by Professor Kenerson was accounted for by the fact that the agitators were warped and unevenly swollen (No. 661, I, 547).

Professor Taggart, moreover, backed his opinion with a demonstration of the action of the Form 3 machine containing an unwarped impeller. The evidence on this point is as follows: At the trial a washing machine was produced and fully and completely authenticated as a Form 3 machine (Deft. Exh. 20) manufactured and sold by the 1900 Company in 1920 and unchanged since the date of its sale (No. 661, Osgood, I, 380-1; Davis, I, 297; Quinn, I, 329; Doughty, I, 339, Deft. Dep. Exh. 102, III, 1812). This machine was demonstrated in the presence of court and counsel, by Professor Taggart of Columbia University, and the demonstration showed that the agitator disc floated on the water in the tub, either with or without clothes in the water.

Professor Taggart first filled the tub with water to within four and five-eighths inches of the top of the rim around the tub, and closed the lid. When this was done, the impeller which was pushed down into the water came back to a position at the surface, indicating that it was floating (No. 661, I, 225). The machine, with no clothes in the tub, was set running and it was observed at the end of two and one-half minutes that the agitator disc did not move down at all but operated in a fixed position in the tub (No. 661,

I, 226). The machine was permitted to remain in operation for ten more minutes at which time it was observed that the agitator was still at the same level (No. 661, I, 227).

At this point the machine was stopped. Then six pounds of clothes were placed in the tub, the position of the agitator was marked, and the machine was again placed in operation (No. 661, I, 227-8). The machine continued in operation thirteen minutes at which time it was observed that the agitator disc had gone down but one-eighth of an inch from the position at which it floated when the machine was started (No. 661, I, 230, 227).

That what has just been described actually occurred cannot be questioned. It was admitted by Professor Kenerson (No. 661, I, 435). The trial judge, who in his memorandum opinion professed inability to observe what Professor Taggart described as occurring in other demonstrations (No. 661, II, 557), had no such difficulty with this demonstration. Instead, he asked Professor Kenerson how he accounted for the difference between the operation of the Form 3 machine in this demonstration and the operation of the Exhibits 47 and 48 demonstrated by Professor Kenerson. In response to this question of the court, Professor Kenerson said (No. 661, I, 525):

> "Well, I don't know; it surprised me to see that the thing stood up that way; I don't know how to account for it."

Later, at the suggestion of Mr. Lane, counsel for plaintiff, Professor Kenerson said that the action of the Form 3 machine in the Taggart demonstration might be accounted for if the device were rusty or clogged up in any way (No. 661, I, 534, 525). But there is no evidence that the machine used in the demonstration was in fact rusty or clogged up.

It may be added that at the trial of cases Nos. 76-7, Mr. Walter Bones for plaintiff attempted to demonstrate a ma-

chine (Pltf. Exh. 16) said to be identical with the 1900 Form 1 washer (Nos. 76-7, I, 342) in order to show that in operation the impeller would sink down in the water and compress the garments, and it was observed that, as the trial judge put it, "It does not seem to want to go down" (Nos. 76-7, I, 158). On cross examination Mr. Bones said he thought it went down a little, maybe a quarter of an inch or maybe a little more (Nos. 76-7, I, 166).

On the foregoing evidence, it is submitted that plaintiff has failed to establish its position that in the Forms 1, 2 and 3 machines manufactured by the 1900 Company the impeller was so mounted as to be incapable of floating when in operation. The fact that warped and water-logged impellers sank in operation does not alter the fact that unwarped impellers did not. The tendency for the impeller to rise and fall in response to the vortex action created by the turbulent movement of the water and clothes may have acted to temporarily interrupt or reduce the degree of circulation, but did not eliminate it as plaintiff contends.

The 1900 Form 4 Machine

In regard to the operation of the 1900 Form 4 machines, there is no conflict of evidence. That the water action is created and maintained in the operation of the Form 4 machine is established beyond question by all who testified on that point (No. 661, Taggart, I, 181; Davis, I, 301, 325-6; Quinn, I, 330; Doughty, I, 341; Behan, I, 365; III, 1725, Nos. 76-7, Davis, I, 402; Quinn, I, 429; Doughty, I, 439-41; 451-2; 453-4, and see ante pp. 48-51). Professor Kenerson, it is true, stated that he had made actual washings in a machine which he called a Doughty & Davis machine but which he did not produce or identify in any other way, and said that under certain conditions (a substantial load of clothes, amount not specified) the clothes "would tangle up badly" (No. 661, I, 536). We think but little weight should be attached to this testimony as against the testi-

mony of the men who actually built the Form 4 machines and studied and observed the water movement of the machines and made contemporaneous records of what they observed (No. 661, III, 1717, 1725-9; Doughty, 340-1).

Snyder's Date of Invention

To avoid the effect of the Doughty & Davis patent 1,496,305 and of the 1900 Company Form 4 machines plaintiff offered evidence to show that Snyder made his invention at an earlier date.* Whether Snyder made his alleged invention before the advent of the Doughty & Davis machine or not, the fact remains that Snyder was anticipated by the Davis patent of 1917 and by the 1900 Company Forms 1, 2 and 3 machines, by the Miller machines and by the earlier agitator type washing machine patents. The only significant difference so far as this case is concerned, between the Davis patent and the Doughty & Davis patent is that the Davis patent uses an inverted overhead impeller while the Doughty & Davis construction uses a bottom-positioned impeller. But neither Snyder nor Doughty & Davis was the originator of the bottom-positioned impeller. The full equivalence of these two arrangements is unequivocally and correctly asserted in Snyder's patent (3/29-44). Both arrangements are shown in the prior art (compare the Jardine patent and the Miller machines, for example) and the antiquity of the bottom-positioned agitator is expressly recognized in the Doughty & Davis patent at page 3 lines 12-19 (see *ante* p. 41).

The Doughty & Davis patent and the 1900 Company Form 4 machines and the evidence as to their mode of

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*Plaintiff in its brief does not contest the fact that the Doughty & Davis machine was completed and tested on February 8, 1921 (br. p. 85). The Doughty & Davis patent application was filed on April 8, 1922. Snyder filed his patent application on June 14, 1922.

operation, do prove by physical demonstration that the overhead impeller and the bottom-positioned impeller do in fact produce the same circulatory flow of the liquid contents of the tub except for the reversal in direction consequent upon the reversal in position, a fact, however, which is admitted in the patent in suit (Snyder patent 3/29-44). The assertions and arguments in which plaintiff attacks the operation of the Doughty & Davis machine, and which are elsewhere discussed in this brief (~~post~~ ante pp. 79-80, 94), are not affected one way or the other by any controversy as to priority between Doughty & Davis and Snyder.

There was conflict between the two Circuit Courts of Appeals as to priority between Doughty & Davis and Snyder. The evidence as to priority and the decisions with respect to this evidence are therefore briefly reviewed.

The evidence offered to carry back the date of Snyder's invention was not deemed to be sufficient for that purpose by the Second Circuit Court of Appeals. That court, reversing Judge Byers, said of the machine of the Doughty & Davis patent that "It too anticipated the [Snyder] patent" (86 F. (2d) 628).

Judge Byers had passed upon the evidence of Snyder's date of invention only in connection with an alleged prior use by one Altorfer. He held that the Altorfer prior use had not been proved and then, referring to Snyder's date of invention, said (No. 661, II, 844):

> "*If it were essential* to fix the date of Snyder's disclosure of his invention, the testimony of Mr. Mason would be relied upon as to January 21, 1921. The reduction to practice preceded that by a matter of months."

His findings of fact did not go beyond this (Finding 26, No. 661, II, 885). Priority as between Snyder and Doughty & Davis was not mentioned in his opinion (see No. 661,

I, 834). Judge Otis in his memorandum opinion in case No. 661 adopted Judge Byers' opinion and approved without any change the findings of fact drawn up by plaintiff's counsel (No. 661, II, 555 and 559). One of these findings (Finding 27, No. 661, I, 37-8) recites at length the effect of the testimony with respect to Snyder's alleged invention in May of 1920, *as plaintiff interprets it.*

The Eighth Circuit Court of Appeals, on the basis of this finding, and the rule that findings based upon conflicting testimony, or upon the credibility of witnesses, should be affirmed by an appellate court if there is any testimony consistent with the finding,* held that Snyder made his invention and reduced it to practice "more than eight months before there was any disclosure of the machine shown in the Doughty and Davis patent" (No. 661, IV, 1894).

The evidence was as follows:

To carry Snyder's date back of February, 1921 (the date when the Doughty & Davis machine was completed and tested, see footnote *ante* p. 45) plaintiff relies upon a wooden tub machine** allegedly built by Snyder in May, 1920. No such machine, or any part of it, or any drawing or illustration or written description or any other contemporaneous recorded evidence of it, was introduced. It appears in the record only as reflected through the memory of the witness Miller who made for the purposes of this litigation an alleged reproduction of it without the aid of

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*Under the circumstances existing, that rule was not applicable, "at least to its full extent." Corona Co. v. Dovan Co., 276 U. S. 358, 375.

**The aluminum tub machine illustrated on page 90 of plaintiff's brief, and referred to on page 88 as having been built "during the Summer of 1921" was later than the admitted date of reduction to practice by Doughty & Davis. We do not understand why plaintiff brings it into the discussion.

any "drawing or anything of the sort" (Nos. 76-7, I, 578, Pltf. Exh. 172 Off. I, 558).

Plaintiff offered oral testimony of a number of witnesses who, aided by this alleged reproduction, testified that they had seen a machine of this character some time in May, 1920 (Bradt, Mooar, Stephen, Thornton, Herbst and Miller). Not one item of record evidence as to this wooden tub machine was offered, although plaintiff was able to offer record evidence with respect to machines of other types upon which Snyder was engaged during this period (Nos. 76-7, I, 560-1).

This absence of contemporaneous record evidence is emphasized by plaintiff's failure to call John Mikulasek, who would be most likely to have records of any such work. Mikulasek was the draftsman in Mr. Snyder's experimental department (Nos. 76-7, I, 584-5). His drafting table was in Snyder's office (No. 661, I, 438); he was, during all of the period in question "in close working contact with said Snyder" (Nos. 76-7, III, 1252), and is the present head of the Experimental Department of the plaintiff company (Nos. 76-7, I, 584, 613). Because Mikulasek's familiarity with what Snyder was doing in 1920 was frequently mentioned by plaintiff's witness Miller (Nos. 76-7, I, 584-5) and by the corroborating witness Elliott, Judge Byers in the *Brooklyn Edison* case inquired whether plaintiff's counsel intended to call Mikulasek as a witness (I, 588). Counsel replied "I don't know yet" (I, 589). Mikulasek was not called, although he was available and in good health (I, 613).*

The total absence of contemporaneous recorded evidence is also characteristic of the testimony of Mr. Mason, which

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*The "production of weaker evidence, when stronger might have been produced, lays the producer open to the suspicion that the stronger evidence would have been to his prejudice" (Runkle v. Burnham, 153 U. S. 216, 225-6).

Judge Byers said "would be relied upon" if it "were essential to fix the date of Snyder's disclosure" (No. 661, II, 844). Mr. Mason's testimony consists solely of recollection of conversations held with Mr. Snyder in the years 1917 to 1922. There is no recorded evidence of these conversations. Although Mr. Mason who is an assistant in the law offices of plaintiff's counsel, kept a very complete and careful professional diary of all his patent work for the Maytag Company, there is no reference in this diary to the invention of the patent in suit prior to April, 1922 (Nos. 76-7, I, 639-45; No. 661, I, 479).

It is a well established rule of this Court that oral testimony unsupported by contemporaneous documents or exhibits is not sufficient to establish events long past, particularly where question of identity of structure or mode of operation is involved.*

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*Barbed Wire Patent Case, 143 U. S. 275, 284, 288; Deering v. Winona, etc., Co., 155 U. S. 286, 300-1; Eibel Process Co. v. Minnesota, etc., Co., 261 U. S. 45, 60.

In the recent case of Smith v. Hall, 301 U. S. 216, there was oral testimony by one Hastings as to the construction and operation of an incubator for a farmer named Davis. Davis testified as to the operation of the device and his testimony was in part corroborated by his wife. Justice Stone said (p. 222):

> "This oral testimony, if taken at its face value, would show that the Smith method was used in the Brooklyn incubator with eggs in staged incubation. But without corroboration, it is insufficient to establish prior use, [citing the Supreme Court cases above mentioned] and we turn to the documentary evidence that Hastings knew the method of the patent and used it in his Brooklyn structure."

This rule applies whether defendant is attempting to establish a prior use or whether plaintiff is attempting to carry its date back of the date of a definitely established anticipation.

(*Footnote continued on next page.*)

The evidence in the *Brooklyn Edison* case, with respect to this alleged prior invention, was stipulated into cases Nos. 76-7. In case No. 661 the evidence offered was of the same general character by substantially the same witnesses.* In addition, plaintiff introduced what it asserted was newly discovered evidence—some original sketches supposed to have been made by Snyder in December, 1919 (No. 661, Pltf. Exh. 25, II, 743, Off. I, 483, and Pltf. Exh. 25-A, II, 747, Off. I, 484). The discovery of these alleged sketches of Snyder was made under circumstances which certainly subject them to suspicion.** One of the sheets bears the signature "D. L. Mooar, December 19, 1919" and "December 17, 1919, Howard Snyder". The other sheet bears the initials "H. S." and "D. M." and the date

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(*Footnote continued from previous page.*)

Clark, etc., Co. v. Willimantic, etc., Co., 140 U. S. 481, 492; Torrey v. Hancock (C. C. A. 8), 184 Fed. 61, 67; Thayer v. Hart (C. C., S. D., N. Y.), 20 Fed. 693-4; Brooks v. Sacks (C. C. A. 1), 81 Fed. 403, 405; Westinghouse, etc., Co. v. Catskill, etc., Co. (C. C. A. 2), 121 Fed. 831, 834; Columbus Chain Co. v. Standard, etc., Co. (C. C. A. 6), 148 Fed. 622, 629-30; Moline Plow Co. v. Rock Island Plow Co. (C. C. A. 7), 212 Fed. 727, 732; National, etc., Co. v. Benthall Mach. Co. (C. C. A. 4), 241 Fed. 72, 82-3; United Shoe Machinery Corp. v. Brooklyn Wood Heel Corp. (C. C. A. 2), 77 F. (2d) 263-4.

*Plaintiff again failed to call Mr. Mikulasek; although he still was available and in good health (No. 661, I, 438-9, 448-491).

**Bradt testified that the sketches were found in a box with some tools, the box having a top which bore signs that "it had been opened some time recently" (No. 661, I, 482-3). Mooar testified that he remembered seeing the tools and materials in an open box in an old drawer in the experimental department and that he had passed this drawer many times in the last year and a half when workmen happened to have the drawer open (No. 661, I, 444).

"December 15, 1919". The first of these sheets was shown to Mr. Mooar and he testified that he signed it on December 19, 1919 and identified the other signature as that of Mr. Snyder. He was not asked anything about the second sheet dated December 15, 1919, nor was he asked to say what he knew about the sketches shown on the sheet dated December 19, 1919—not even whether all of the many sketches on the sheet were there when he signed it. These sketches, thus insufficiently proved, cannot be thought of as any evidence of Snyder's date of invention. Although they are casually referred to at page 91 of plaintiff's brief, plaintiff's suggested Finding of Fact No. 27, which was accepted verbatim by Judge Otis (No. 661, I, 37-8), does not include any reference to these sketches in its full (and not unprejudiced) recital of the evidence.